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AUTHOR Dever, Richard B.; Sitlington, Patricia L.
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ABSTRACT

Project COMPETE (Community-based Model for Public School Exit and Transition to Employment) was a model demonstration project designed to develop linkages between public schools and community rehabilitation agencies, in order to provide work training to severely handicapped youth, aged 16-22. The schools took on responsibility for providing initial work training and work experiences, and the rehabilitation center was made responsible for getting the students/clients ready for competitive employment. In achievement of its objectives, the project developed and validated a service delivery model which linked secondary schools and community-based agencies to prepare severely handicapped youth for successful transition from school to employment, systematically evaluated and revised all components of the model program, replicated the model at an additional site, and disseminated information about the model. This final report discusses achievement of project objectives, client and community demographics, evaluation activities, and case studies. (JDD)

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FINAL REPORT

December, 1987

EC 212143

PROJECT COMPETE

Center for Innovation in Teaching the Handicapped

Department of Education Grant No. G008430112

Project No. 158BH60004

Project Director: Dr. Lewis Polsgrove

Principal Investigators: Dr. Richard Dever
Dr. Patricia Sitlington

Research Associate: Joe Easterday

F I N A L R E P O R T

December, 1987

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PROJECT OVERVIEW

Statement of Purpose

Project COMPETE (COmmunity-based Model for Public School Exit and Transition to Employment) was a model demonstration project designed to develop linkages between the public schools and community rehabilitation agencies. It was established to help these agencies develop ways of working cooperatively to provide work training in the most competitive environment possible to severely handicapped youth, ages 16-22.

Since the major goal of COMPETE was to develop cooperative programs between discrete agencies, the techniques used by Project COMPETE staff to train severely handicapped persons to perform work were not new: the project deliberately used training techniques that had been developed by other researchers in other locations. The primary focus of the project was to carry out its training of student/clients* while operating within the constraints imposed by existing independent service delivery systems, i.e., the public schools and community rehabilitation agencies. This report will show that the project attained this goal and its specific objectives despite the facts that flaws in the training techniques were found, a fact which may be attributed to the unique COMPETE multi-agency experience.

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* Note that where the public schools use the term, "student", rehabilitation centers use the term, "client". Because COMPETE involved cooperative programming with both of these agencies, the term "student/client" was coined and will be used throughout this report.

I. Actual Accomplishments

The project goals were operationalized in terms of the specific objectives presented in Table 1. These objectives have been met successfully.

Objective 1

To develop and validate a service delivery model which links secondary schools and community-based agencies in preparing severely handicapped youth for successful transition from school to employment

Figure 1 presents the original model under which Project COMPETE was conceptualized. The project was developed under the assumption that the severely handicapped student/client does not change personas or training needs simply by moving from one administrative unit to another. Therefore, appropriate work training would require agencies to work together to develop a continuum of services that build on one another and work toward eventual placement of the student/client in competitive employment. Accordingly, Figure 1 depicts work training services as a continuum within which different agencies have joint responsibilties.

The model in Figure 1 presents the sequence of services provided to the clients, and assumes that jobs will be found for them as they are trained and become ready to enter the work force. From the perspective of administrators of service provision agencies, the model is useful in that it outlines the sequence of activities through which a learner goes in Project COMPETE. However, from a student/client training perspective, Project COMPETE staff came to the realization that a different model was required within which the project activities could be conceptualized. This new training model emerged as the project moved into the latter

Table 1

List of Objectives

Objective 1 - To develop and validate a service delivery model which links secondary schools and community-based agencies in preparing severely handicapped youth for successful transition from school to employment.

Objective 1.1 - To identify, analyze, and inventory potential target employment environments in which severely handicapped youth could be placed.

Objective 1.2 - To develop and validate a continuum of job-related interpersonal and specific occupational behaviors required to function in these environments.

Objective 1.3 - To identify and validate a training sequence to be implemented by the public schools and community-based agencies to enable severely handicapped youth to acquire these behaviors.

Objective 1.4 - To develop, implement, and evaluate an on-going assessment process to determine the status of each learner relative to these behaviors, provide information relative to these behaviors, provide information for the development of Individualized Educational/Habilitation Plans, and monitor progress toward achievement of IEP/IHP goals.

Objective 1.5 - To develop and evaluate a process for obtaining interdisciplinary input into the Individualized Educational/ Habilitation Plan and for coordinating the goals and objectives for these two plans.

Objective 1.6 - To identify, implement, and evaluate procedures for training, placing, monitoring, and supporting trainees in competitive employment.

Objective 1.7 - To develop and validate procedures for facilitating effective communication between the school and community-based service deliveries to ensure access by each learner to these community-based services.

Objective 1.8 - To develop and validate procedures for training public school and community agency staff in the assessment, instruction, and curriculum development skills needed to implement the model.

Objective 2 - To systematically evaluate and revise all components of the model program.

Objective 3 - To replicate the model in two additional sites in Indiana.

Objective 4 - To disseminate information on the model to professionals on the local, state, and national level.

Figure 1: Original COMPETE Model

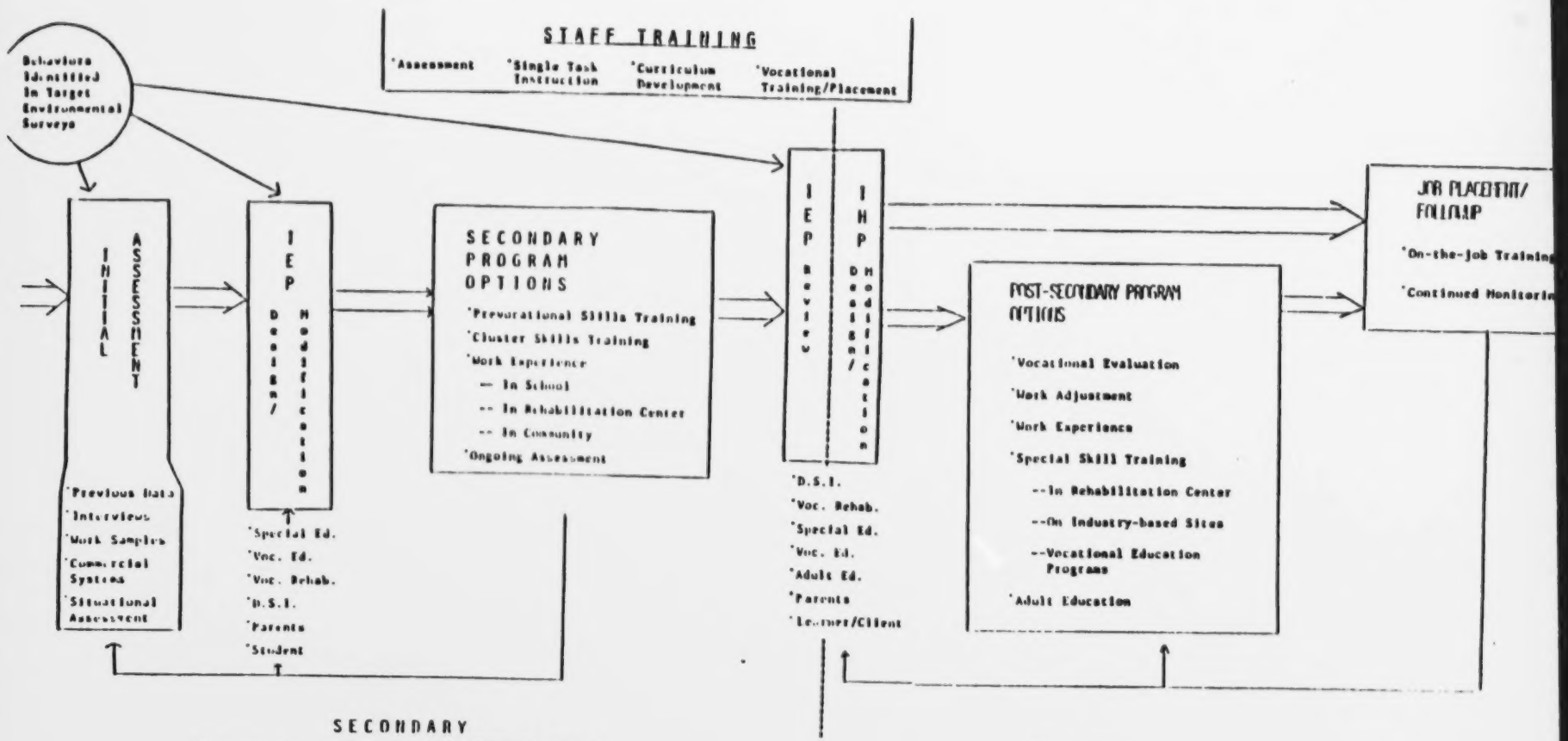


Figure 1: Project COMPETE Program Implementation Model

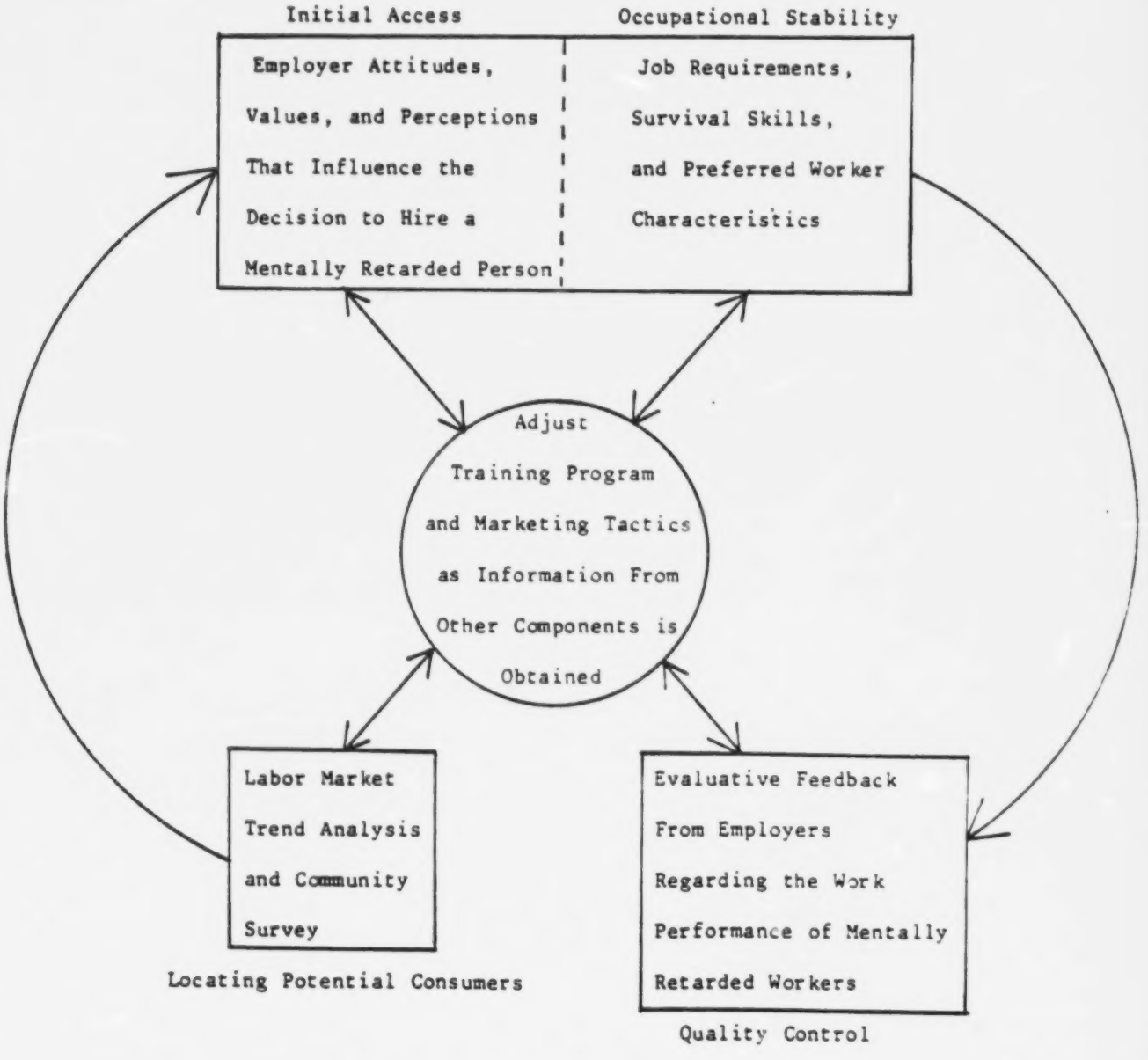
half of the second year and on into the third year. It is a Marketing Strategy Model (Kotler, 1975) for employment training and the provision of transition services (detailed in COMPETE Working Paper 87-2). In brief, a marketing strategy requires service providers to look outward and attend not only to the student/clients, but also to the consumers of the training, i.e., employers. It is a "two-client approach" (Como & Hagler, 1986) in which the clients served by the agency are both the handicapped trainee and the potential employer.

The marketing strategy employed by Project COMPETE is depicted in Figure 2. This approach required the project to: (a) conduct a labor market survey to discover where potential employers might be in the catchment area (lower left box); (b) discover what these employers considered when hiring new employees (left half of top box); (c) discover the behaviors and skills the employers required of employees for their continued employment (right half of top box); and, (d) develop feedback and other communication devices to assist the school and rehabilitation center in training, placing, and maintaining the employee in his/her job. At each stage, information was analyzed and used to continue development of appropriate training and marketing procedures.

This "two-client" approach has much to recommend it. Too often service sector personnel forget that the primary focus of business is profit. A business person hires a worker to increase the ability of the business to make a profit: employers know what they expect from their employees, and from an employer's perspective, an employee who does not contribute to the profitability of the business is not worth employing. Although many business persons may exhibit altruism, it has little place in the business itself, especially in the small businesses in which

Figure 2:

A Marketing Strategy Application For a Competitive Employment Program


Initial Access
Occupational Stability
Employer Attitudes, Values, and Perceptions That Influence the Decision to Hire a Mentally Retarded Person
Job Requirements, Survival Skills, and Preferred Worker Characteristics
Adjust Training Program and Marketing Tactics as Information From Other Components is Obtained
Labor Market Trend Analysis and Community Survey
Locating Potential Consumers
Evaluative Feedback From Employers Regarding the Work Performance of Mentally Retarded Workers
Quality Control

severely handicapped persons are likely to find employment. In a very real sense, the job of human service personnel is to develop employees who will be worth keeping and hiring from an economic perspective, an act which requires knowledge of what employers want and need from their employees. Project COMPETE used information from the employer survey as a foundation upon which to structure the student/client training programs. Each of the subobjectives was met within the context of this "two client" marketing model for transition training.

The COMPETE service delivery system is currently in place and operating, and will continue to operate in the future. Four independent agencies are currently cooperating in providing transition services to severely handicapped youth in the Southern Indiana counties of Bartholomew and Jackson: (1) the Bartholomew Special Services Cooperative (BSSC), a multi-county public school agency that serves the target population of the project; (2) Developmental Services, Inc. (DSI), the community rehabilitation agency that provides adult rehabilitative and other services in Bartholomew and Jackson Counties; (3) Office of Vocational Rehabilitation (VR), the Indiana vocational rehabilitation agency; and (4) the Private Industry Council (PIC), which administers Job Training Partnership Act (JTPA) funds. Each of these agencies provides expertise and/or funds for transition services for the target population.

The vehicle for coordinating these services is the Individualized Transition Plan (ITP). The interagency agreement related to the transition planning process is presented in Table 2. It requires DSI, the community rehabilitation agency, to be represented at the annual case reviews (ACRs) conducted by the public schools when the

Project COMPETE

Agreement for Individual Transition Plans

On March 20, 1987, The Bartholomew Special Services Cooperative, Developmental Services, Inc., and the local offices of Vocational Rehabilitation reached agreement on the following:

That personnel from Developmental Services, Inc. and the office of Vocational Rehabilitation be invited to certain Annual Case Reviews during the public school years. These ACRS are to include specific topics related to transition and transition planning. These are:

Annual Case Review at Age	Purpose
12	Inform parents about vocational training program, and enlist their support
15	Inform parents about vocational training programming and enlist their support; solicit input from DSI for vocational programming; establish future vocational program at DSI
16	Inform parents about vocational programming and enlist their support; schedule Unified Case Management D & E; decide initial community/DSI work training placements
17/18	Inform parents about vocational programming and enlist their support; decide community/DSI training placements
Final	Inform parents about vocational programming and enlist their support; parent release of records to VR; solicit input from VR for future programming/placement

This schedule would require both school and DSI personnel to be present at the Annual Case Reviews for CA 12, 15, 16, 17/18, and for the VR representative to be present at the final ACR. The VR representative would also be invited to attend all of the ACRs attended by the DSI representative. A major topic at each of these ACRs would be the vocational goals and objectives for the learner, and future job placements designed to meet these goals and objectives.

The current DSI representative is Mary Austin. When the school schedules the ACR, she is to be notified by school personnel (usually the teacher) at least two weeks in advance of the meeting. She will then contact the VR representative to provide notification of the meeting.

student/clients are CA 12, 15, and each year following until the final annual case review at the completion of the school program (which usually occurs at age 18 in Indiana). Representation by Vocational Rehabilitation is provided at the annual case reviews at CA 15, and each year following until the final ACR. In these case reviews, a major topic of discussion is the employment training program for each student/client, including vocational evaluation planning, work experience placements, and competitive employment placements when appropriate. The fact that three totally separate agencies have agreed to be represented at these ACRs is a major accomplishment for the project, and indicates that the program initiated by the project will continue to be developed and refined after the federally supported activities have been terminated.

Job Training Partnership Act funds from the Private Industry Council (PIC) are used to continue the project activities across the summer months when school is not in session. Actually, the PIC contribution was in place when COMPETE began, i.e., PIC has provided funds to support the SWAP (Student Work Adjustment Program) since 1983. This program was originally developed by the public school Vocational Education Department and DSI. It was one in which severely handicapped high school students spent half days at the workshop so that they could adjust to sheltered employment before they completed their public school programs. Thus, for the past ten years, PIC has provided support for a transition program. Although funding levels have dropped as a result of cutbacks in federal distributions, PIC will continue to provide some support for the foreseeable future. However, Project COMPETE has changed the focus of the use of these funds from providing training for

sheltered employment to providing training for community-based employment.

The previous section documents the fact that the overall objective of the project, i.e., the development of a service delivery model, has been met. The sub-objectives guiding the project have also been met. They are as follows:

Objective 1.1

To identify, analyze, and inventory potential target employment environments in which severely handicapped youth could be placed

To meet this objective, a major survey of employers in Bartholomew and Jackson Counties was conducted. The manner in which this survey was conducted is outlined in COMPETE Working Papers 85-3 and 85-4. Basically, it required: (a) completion of a general economic and labor market trend analysis in Bartholomew and Jackson Counties to identify target occupational areas; (b) development of interview and data recording forms and procedures for each phase of the analysis; (c) making direct contact with employers who had potential jobs in one or more of the target occupational areas.

Labor Market Trend Analysis. This analysis summarized economic data, occupational information, annual occupational opportunities, and labor market projections by job clusters relative to employment of severely handicapped individuals in Bartholomew and Jackson Counties. This information indicated that the most promising job categories for the foreseeable future would be in: (a) hotel/motel cleaning services; (b) janitorial; (c) food service; (d) groundskeeping; (e) garden/floral related; and (f) general labor. The details of this analysis are provided in COMPETE Working Paper 85-3.

Development of Forms and Procedures. COMPETE Staff conducted a review of the literature and developed forms for the following purposes: (a) contacting and screening employers; (b) interviewing potential employers; (c) analyzing job skills, conditions, and required standards of performance; (d) analyzing the critical functions of a job once the job and worker had been matched. Copies of these forms are found in COMPETE Working Papers 85-4 and 87-5.

Direct Contact with Employers. Using the job categories identified in the Labor Market Trend Analysis, COMPETE Staff contacted appropriate potential employers, and interviewed them to gather information on the business, specific job opportunities, preferred and non-preferred workers traits, and employer attitudes and expectations for workers. This information was used to develop instructional programming for the student/clients, and is summarized in COMPETE Working Papers 85-4, 85-6, 87-2, 87-3, and 87-5.

This survey has proven so useful that it has been replicated in the Indiana Counties of Monroe, Lawrence and Owen by other agencies. The State Vocational Rehabilitation Agency is impressed with the quality of information gathered, and is considering sponsoring additional replication in other counties across the state.

Objective 1.2

To develop and validate a continuum of job-related interpersonal and specific occupational behaviors required to function in these environments

To meet this objective, two steps were taken:

a. A taxonomy of vocational skills was developed to provide benchmarks for instruction. This work constitutes one section of the new

monograph, Community Living Skills: A Taxonomy that received its final development under the aegis of Project COMPETE. It is being published in its entirety in the Monograph Series of the American Association of Mental Deficiency this year (see COMPETE Working Papers 85-1 and 85-2 for early drafts).

The monograph, Community Living Skills: A Taxonomy is a guide for curriculum developers. It consists of an organized list of the skills required for community living. Local personnel can use it as a template to place on their own communities to guide decisions as to what their severely handicapped learners must learn to become independent in their community.

The Taxonomy was validated in a national survey of its construction and utility. The survey had an excellent 52% return rate, and was very favorably received by the respondents.The data for this survey is presented in COMPETE Working Paper 87-4.

b. An experimental curriculum that focuses on prerequisites and precursors to the goals in the Taxonomy was developed. It places great emphasis on work habits, attitudes, and interpersonal skills, which are the areas most heaviliy emphasized by the employers in the surveys conducted for the project (see COMPETE Working Paper 87-2). This curriculum appears in COMPETE Working Paper 85-5. It is incomplete, i.e., curriculum development work continued to the end of the project, and will continue beyond the project. Nevertheless, the curriculum as it presently stands is finding use in the public schools associated with the project.

Objective 1.3

<u>To identify and validate a training sequence to be implemented by the public schools and community-based agencies to enable severely handicapped youth to acquire these behaviors</u>

The work related to Objective 1.3 focused on three separate thrusts: (a) the development and utilization of work experience sites for student/clients in both public school and rehabilitation settings; (b) the application of instructional data obtained from the Labor Market Trend Analysis, the Employer Interview, Intermediate Job Analyses, and the Taxonomy; and (c) delineation of the role of the public school, the rehabilitation center and other community-based agencies in placement, training, and follow-up of students in community-based settings.

Classroom teachers in BSSC and rehabilitation center staff from DSI, working with COMPETE staff, have synthesized and implemented information provided by the Taxonomy and the Community Survey. Work experience sites within the schools have been identified and utilized for students CA 12 - 16. Student/clients over CA 16 have been provided with extensive work experience in a number of community sites (Table 3 presents a list of the students and the community work experience sites into which they have been placed). The principals of the schools involved in Project COMPETE have provided excellent adminstrative support for the project. For example, they provided much of the input to the modification of school policies and regulations so as to accommodate work experience training in the schools and in the community during school hours.

Prior to initiation of Project COMPETE, the Bartholomew County Schools and Developmental Services, Inc. (DSI, a rehabilitation center

Table 3:

List of Work Experience Placements

Student/Client	Business	Position	Dates
Dennis	Coca-Cola Bottling Company	Bottle Sorter	10/21/85-12/20/85
LaDonna	Columbus Animal Shelter	Kennel Assistant	11/13/85-2/21/86
Donnie	Koala Center	Dietary Aide	1/13/86-5/23/86
Alan	Koala Center	Building and Grounds Cusodian	2/13/86-4/25/86
April	St. Columba Catholic Church	Custodian	6/16/86-8/8/86
LaDonna	Koala Center	Dietary Aide	6/16/86-8/8/86
Gary	Jackson Elementary School	Custodian	6/16/86-8/8/86
Michelle	Convenient Food	Stock Clerk	6/16/86-6/25/86
Steve	Columbus Animal Shelter	Kennel Assistant	6/23/86-8/8/86
Donnie	The Left Bank	Dishwasher	6/23/86-7/18/86
Becky	Columbus Convalescent Center	Dish room Aide	6/23/86-8/8/86
Dennis	Indiana University-Purdue University at Columbus	Custodian	6/30/86-8/8/86
Dennis	Koala Center	Dietary Aide	10/20/86-1/31/87
Steve	Columbus Animal Shelter	Kennel Assistant	11/10/86-1/16/87
Gary	Harry & Faye's Cafe	Dishwasher	11/10/86-1/16/87
Brad	First United Methodist Church	Custodian	11/24/86-1/31/87
April	Columbus Convalescent Center	Laundry Aide	1/5/87-3/17/87

Table 3 (Cont.)

Student/Client	Business	Position	Dates
Becky	Koala Center	Dietary aide	2/9/87-5/1/87
Dennis	Columbus Animal Shelter	Kennel Assistant	3/16/87-5/22/87
LaDonna	YMCA	Custodian	3/30/87-5/22/87
Steve	Columbus Nursing Home	Kitchen Helper	3/30/87-5/22/87
April	Columbus Nursing Home	Laundry Aide	6/15/87-7/31/87
Steve	Koala Center	Dietary Aide	6/15/87-7/31/87
Jenny	Columbus Animal Shelter	Custodian	7/16/87-7/31/87
LaDonna	Knight's Inn	Laundry Aide	6/8/87- 7/31/87

in Columbus, Indiana) had jointly developed a program entitled Student Work Adjustment Program (SWAP). This program, supported by Job Training Partnership Act funds, was designed to ease the transition of moderately retarded and low-functioning mildly retarded students from school to the sheltered workshop. SWAP students were bussed to DSI for three hours each day where they participated in the work adjustment program. Their major vocational training activities involved the basic bench assembly tasks found in most sheltered workshops, along with instruction in work habits and attitudes, interpersonal skills, and such functional skills as job seeking and keeping skills.

Project COMPETE accomplished the following changes: (1) the goal of the existing SWAP Program was refocused from preparation for sheltered work to preparation for community-based employment. In this refocusing, the role of the rehabilitation center (Developmental services, Inc., or DSI) was changed from training for bench assembly tasks to providing work experiences and vocational training in their skill training programs (food services, janitorial and grounds care and maintenance); (2) the school system became involved, for the first time, in the direct provision of work experiences, both on the school grounds, and in the community; (3) vocational rehabilitation counselors changed from opening cases at the time clients leave the school program to opening cases when the clients reached the age of 16.

In addition, COMPETE staff worked with the rehabilitation center staff to continue the program during the time at which the public schools have no involvement, i.e., (a) in the summertime; and (b) following graduation of the student/clients from the public schools. The

student/clients are provided with further work experience training when necessary, and competitive job placement and follow-along.

Thus, a continuum of work experiences and training for competitive employment has been put into place. Basically, the public schools provide most of the work experience, while the rehabilitation center provides summer work experience, competitive employment training, and follow-along services. The work experience training actually begins before the age of 12 when elementary and middle school teachers provide work experiences in the classroom and school buildings. These experiences provide an opportunity to teach necessary work habits, attitudes, and interpersonal skills. Then, beginning at the age of 16, the severely handicapped youth are placed in several successive work experience sites in which they are trained in natural work settings by a classroom teacher who has been assigned to job trainer/coach duties. Over the course of the next two or three years the student/clients have the opportunity to try out several jobs in which an attempt is made to teach them to perform at industry standards. This training not only allows them to develop a perception of the kinds of work each student/client likes to do and is good at, it also provides an opportunity to develop supportive community living skills, e.g., money skills, travel skills, and work-related interpersonal skills such as getting along with the supervisor, fellow employees, and perhaps the public. During the summer months, the rehabilitation center SWAP personnel continue the program, coaching student/clients in various work experience sites. When the student/clients graduate from the public school program, rehabilitation center personnel continue the training, in supported employment when possible, and in additional work experience

sites when necessary.

The fact that the community rehabilitation agency is involved in the planning and development of the work training program for school age student/clients starting at an early age gives the rehabilitation personnel access to valuable information on the student/client prior to the time he or she enters adult work training programs. This information is used to structure efficient and effective training, placement and follow-along services.

The validation for this sequence is provided in the employer survey data: employers were asked to identify employer-preferred employee characteristics, i.e., the behaviors that caused them to want to hire, keep or fire a worker. Overwhelmingly, they cited work habits, work attitudes, and interpersonal skill deficits as their major concerns. These data are provided in detail in COMPETE Working Paper 87-2.

Objective 1.4

<u>To develop, implement, and evaluate an on-going assessment process to determine the status of each learner relative to these behaviors, provide information relative to these behaviors, provide information for the development of Individualized Educational/Habilitation plans, and monitor progress toward achievement of IEP/IHP goals</u>

The COMPETE assessment process consists of an integrated sequence of both formal and informal assessments which begin in junior high school and continue through final placmeent of the student/client. This process involves combining data collected by school and rehabilitation center personnel across work experience and training sites in the school, the rehabilitation agency, and the community.

The assessment model implemented by COMPETE was developed by Patricia Sitlington, who was co-principal investigator in the initial stages of the project. The emphasis of the assessment is on determining what the learner currently knows, and what skills he/she is capable of performing. Assessment is conducted in as realistic an environment as possible, and is closely tied with the work experience and training components. It is structured as follows:

The major goals of the assessment process are threefold: (a) To determine the status of each learner relative to the job-related and specific occupational behaviors contained in the Taxonomy of Community Living Skills; (b) To provide information for development of the school Individualized Educational Plan (IEP) and the rehabilitation center Individualized Program Plan (IPP); and (c) To monitor progress of each learner toward achievement of the IEP/IPP goals and objectives.

The assessment component of the COMPETE model serves as a vehicle for bringing together other components of the COMPETE system. Whereas the goals and objectives delineated in the Taxonomy of Community Living Skills serve as the template for determining the job-related and personal behaviors that the student/client will need to be successful in the world of work, the results of the employer survey and the intermediate job analyses are combined with assessment information to identify the specific occupational skills needed for employment.

Initial Assessment Phase. The initial assessment phase for Project COMPETE begins as the student enters the secondary level of the public school program (usually at age 16). It consists of an in-depth assessment of the student/client's job-related interpersonal skills,

functional academic skills, manual dexterity, physical endurance, and interest areas.

The first component of the initial assessment phase requires the compiling of information from student and teacher interviews, and functional academic and interest tests that are administered as early as junior high school. The second component of the initial assessment phase is conducted by the vocational evaluation staff of the rehabilitation center. This phase involves an average of two weeks of intense evaluation using commercially available assessment instruments and structured observation of student/clients in work experience settings within the rehabilitation center. It is carried out at the age of 16, following the ACR that occurs at this point in the student's career. The specific instruments used are determined by the characteristics of the learner and the information that is being sought. The following instruments form the pool from which this selection is made.

a. Interest: Valpar 17 Pre-Vocational Readiness Test; Wide Range Interest Opinion Test (WRIOT); Becker Reading-Free Interest Inventory.

b. Basic functional behavior: Street Survival Skills Questionnaire; Trainee Performance Sample; Valpar 17; Perceptual Memory Task of the McCarron-Dial.

c. Manual dexterity: Purdue Pegboard; Crawford Small Parts Dexterity Test; Minnesota Rate of Manipulation Test; Stromberg Dexterity Test; Minnesota Spatial Relations Tests; Pennsylvania Bi-Manual Work Sample; Bennett Hand Tool Dexterity Test.

d. Basic exploration: Vocational Information and Evaluation Work Samples (VIEWS); Micro-computer Evaluation and Screening Assessment (MESA); Valpar Component Work Sample Series, 1 - 16.

Ongoing assessment phase. The ongoing assessment phase of the COMPETE model builds upon the information gathered in the initial assessment and provides a method for systematically observing and summarizing the student's behavior in work experiences and training settings within the school, rehabilitation center, and community (COMPETE Working Paper 87-4). Four instruments have been developed by COMPETE staff to gather information in these settings: (a) the Project COMPETE Work Performance Profile (COMPETE Working Paper 87-5); (b) the Critical Function Profile (COMPETE Working Paper 87-2 and 87-5); (c) the Employer Concern Form (COMPETE Working Papers 87-2 and 87-5); and (d) the Employer Rating Scale of Worker Performance (COMPETE Working Paper 87-2 and 87-5).

The Work Performance Profile was developed in conjunction with members of the public school and DSI staff and was field tested in the work experience and training sites at DSI. The Profile was then revised and is now being utilized to evaluate student performance in school, rehabilitation center and community work experience settings. Worker performance in 15 areas related to competitive employment is evaluated with this form. It was originally filled out by employers during the last week of a work experience placement, but this function is now filled by the shorter Rating Scale of Worker Performance. Currently, the Work Perfomance Profile is completed by the job coach at the end of a work experience placment.

The Critical Function Profile (CFP) was designed to document and evaluate the ongoing acquisition of skills specific to a given task. The format for the CFP was taken from the Task Analysis Data Sheet described by Bellamy, Horner, and Inman (1979).

A critical functions analysis is not the same as a task analysis, i.e., the variables introduced by individuals and/or situations are not considered when identifying critical functions (White,1980). An analysis of critical functions identifies only the accomplishments the student/client must attain in order to complete a task successfully. If a student/client can satisfactorily perform a critical function associated with the completion of a specific task, no further analysis of the skills required to accomplish that critical function is deemed necessary. If the student/client cannot perform a given critical function, then a task analysis of the critical function may be conducted to assist instruction.

The Employer Concern Form was composed of a one-page list of work-related behaviors that COMPETE Staff initially thought employers might find important in their workers, e.g., "ability to perform assigned tasks"; and "getting along with the public". Although useful data was obtained from the use of this form, the employer survey data indicated that employeres perceived certain concerns to be more important than others. Accordingly, using the employer survey data as a guide, a new form was developed to replace the Employer Concern Form: The Employer Rating Scale of Worker Performance. This form is now in regular use to evaluate student/client performance on the job. It concentrates on just five areas: (a) general work skills; (b) work habits; (c) work

attitudes; (d) personal characteristics; and (e) getting along with others.

Taken together, the four forms used to evaluate on-going student/client performance on the job provide a complete picture of learner progress and current functioning both in a specific job, and across a number of jobs. Only the Work Peformance Profile requires very much time to use (the other two forms occupy only a single page). The Work Performance Profile is used only once during a placement (at the end of the placement), whereas the other two are in continuous use: the CFP probes are taken once a week during the first four weeks of a work experience placement, and then every other week for the remainder of the placement (or more often if needed); the Employer Concern Form is used six times during the course of a student/client placement in a work experience or competitive placement.

Objective 1.5

<u>To develop and evaluate a process for obtaining interdisciplinary input into the Individualized Educational/Habilititation Plan and for coordinating the goals and objectives for these two plans</u>

This objective was met through the establishment of the individualized transition planning process that was outlined previously under the Objective 1 statement (pp 2 - 5). The three major agencies making an input to the Individual Transition Plan (ITP: actually a combined IEP/IPP/IRP) are the public schools (BSSC), the community rehabilititation agency (DSI), and the state vocational rehabilitation agency (VR). In this process, two agencies are represented at Annual Case Reviews for student clients, beginning at the age of 12, and three agencies at age 15.

Beginning in the 1985-86 school year, students 15 years and older began to participate in the joint IEP/IPP/IRP conferences to facilitate interdisciplinary input and coordination of goals and objectives in these two plans. In addition, a DSI staff member participates in IEP conferences for severely handicapped students at age 12 (or when they enter the middle school program).

Student/clients are placed on the VR Rolls at the age of 16, when the vocational evaluations are conducted. Vocational Rehabilitation counselors in Bartholomew and Jackson Counties now participate in IEP conferences for severely handicapped students as they enter the high school program, and then each year after age 15 for the duration of their school enrollment. BSSC personnel responsible for case conference management have agreed to include the Vocational Rehabilitation Counselor and the DSI representative in the Notification of Case Conference/Review to ensure that both Vocational Rehabilitation and the rehabilitation center make an input into the design of student programming.

Objective 1.6

<u>To identify, implement, and evaluate procedures for training, placing, monitoring, and supporting trainees in competitive employment</u>

Project COMPETE staff have provided extensive training to selected rehabilitation center staff, and to the Bartholomew and Jackson County secondary teachers who teach moderately and severely/profoundly handicapped students. The COMPETE staff has determined that a job trainer/coach model is most effective in maintaining severely handicapped workers in employment. A job trainer/coach is a professional who provides specialized job placement, site training, assessment, and

follow-along services to disabled persons who are difficult to place in competitive employment (Wehman, 1981). Originally, the job trainer/coach assumed the duties of job development, job placement, job training, and on-going assessment and follow-along. In the execution of these duties, the Project COMPETE job trainer/coach conducted community and employer surveys, developed IEP/IPP goals and objectives, trained and evaluated progress of student/clients, and acted as an interagency liaison. Because the number of student/clients increased so greatly by the end of the project, it became impossible for one person to perform all of these duties, and other staff are begining to assume the job development duties. The job coach continues to provide work placement, work experience, work training, and follow-along services.

In keeping with the goal of cooperation and coordination of school and rehabilitation agencies, the Project COMPETE job-coaching staff employ a model which uses two job coaches, one from the school system, and one from the rehabilitation center. The coach from the school system works with student clients age 16 and 17 in community work experience sites, while the rehabilitation center coach works with student/clients in the last year of the high school program, during the summer program, and following graduation from the public school program. The rehabilitation center job coach works in both work experience placements and competitive placements.

Despite the fact that the job coaches are employed by different agencies, they stay in close contact with one another through periodic meetings and informal conferences focusing on the status of the student/clients, job sites and problems raised by the employer's on-site supervisor(s). Discussions involve newly opened and potential job sites

for both work experience and competitive placement, and progress of student/clients who are being made ready to go out into work experience sites, or who are actually in these sites. Regular exchanges are made on information collected in the data- gathering process, and on-going decisions are made to update the programs provided to the student/clients.

This close interaction between public school and rehabilitation agency job coaching staff is unusual, and the fact that it occurs smoothly and without territoriality problems illustrates the focus on learner development that can be developed by different agencies with common goals. The fact that cooperation is fostered by the administrations of both the public schools and rehabilitation agencies speaks volumes on the intentions of both groups to ensure that the student/clients being served jointly by these agencies receive comprehensive transition training.

Objective 1.7

To develop and validate procedures for facilitating effective communication between the school and community-based service deliverers to ensure access by each learner to these community-based services

Objective 1.7 has been met by actions on four levels: (a) meetings with State and Local Advisory Committees; (b) meetings of the Project COMPETE Core Team; (c) meetings with building principals from the public schools; and (d) joint training of school and rehabilitation center staff.

a. Advisory Committees. Project COMPETE has used the advisory committee concept to (a) develop "ownership" of the project among state and local-level decision makers; (b) solicit input on issues and

approaches related to COMPETE activities; (c) foster discussion of transition issues among state and local agency heads, parents, and locally influential people; and (d) disseminate information on COMPETE and its activities throughout the state.

The Project COMPETE State Advisory Committee was composed of the following members:

- Commissioner, Department of Mental Health
- Director, Indiana Rehabilitation Services
- Director, State Department of Special Education
- Executive Director, State Board of Vocational/Technical Education
- Director, Division of Adult and Continuing Education, Indiana Department of Education
- Executive Director, Indiana Association of Rehabilitation Facilities
- Executive Director, Indiana Association for Retarded Citizens

The COMPETE Core Team (see following section) has met with the State Advisory Committee six times during the course of the project. State level committee members were kept apprised of project activities and progress. In addition, barriers to cooperative transition training were identified in the course of implementing Project COMPETE objectives, and presented to the State and local Advisory Committees for action. At one of the first meetings of this group, a task force was formed comprised of the major agency heads identified above. It was later superceded by the Governor's Council on Supported Employment, a group with the same composition, plus representatives from the Governor's Office and the State Chamber of Commerce. This group has been charged with the task of addressing possible policy changes, rule

promulgation, and legislative changes within the state that could foster the transition of handicapped persons from school to adult life.

Project COMPETE also established two Local Advisory Committees, one in Bartholomew County, and one in Jackson County. They are composed of the following members:

a. Bartholomew County:

- Director of Vocational Education
- Director of Adult Education
- County Coordinator of JTPA Programs
- President of Bartholomew County School Board
- Vocational Rehabilitation Counselor
- Indiana Vocational-Technical School Placement Counselor
- Vocational Rehabilitation Coordinator, Area 10
- Parent
- President, Bartholomew County Chamber of Commerce

b. Jackson County:

- School Board Member, Jackson County Community Schools
- Member, Jackson County Chamber of Commerce
- County Auditor
- Director, Jackson County Mental Health Association
- Special Needs Vocational Teacher
- Vocational Rehabilitation Counselor
- Vocational Rehabilitation Coordinator, Region 11
- Parent
- Postal Director, Jackson County Post Office

The Bartholomew County Local Advisory Committee has been convened on four occasions, and the Jackson County Advisory Committee on two. The Local Advisory Committees have been apprised of Project accomplishments, and solicited for input concerning solutions to local barriers to implementation of the COMPETE objectives.

Comments from all three advisory groups have indicated high praise for Project COMPETE and support for the COMPETE model. Advisory committee members have been instrumental in disseminating information on the COMPETE model throughout the state and local regions represented by each group, and in implementing the needed changes in existing systems.

b. Core Team. The Project COMPETE Core Team consists of the Principal Investigator of Project COMPETE, the BSSC Director of Special Education, DSI Rehabilitation Director, Project COMPETE On-Site Coordinator (a DSI employee), the DSI Chief Work Adjustment Coordinator, and the COMPETE Research Associate. The purpose of the Core Team is to coordinate project activities between the school system, rehabilitation center, and research staff. Input and support from both public school and rehabilitation center administrations have been essential in identifying and implementating project strategies, and in allocating agency resources.

c. Building Principals. It is axiomatic in public schools that little can happen in a school without the consent and support of the building principal, who is legally responsible for everything that happens to the students under his/her supervision during the school day. Therefore, it was essential that Project COMPETE gain the active support of the building principals whose buildings were involved in COMPETE activities. Accordingly, each fall when schools began their sessions,

and each spring when schools were ending for the summer, the COMPETE staff met with the building principals to update them, obtain their suggestions, and solicit support. Informal updates of project activities were also provided on an on-going basis. Project activities were enthusiastically supported by all the building principals involved. In addition, when the time came to move the class of high school aged moderately and severely retarded youngsters from the junior high building in which it was originally located to the more age-appropriate high school in the fall of 1987, the high school principal and assistant principal (who were unaware of the project's existence at the time of the decision to move) were briefed by the junior high principals. As a result, they readily agreed to continue the project's activities at the 1987 spring meeting of principals.

d. Training Sessions. On the fourth level of communication, fourteen group training sessions, and over thirty small group and individual training sessions were conducted by Project COMPETE staff. The participants in these sessions included the teachers of the severely handicapped and direct service and administrative personnel from DSI. One of the major purposes of the training sessions was to promote an integrated and coordinated system of program planning and service delivery which spanned the school and rehabilitation center's respective programs. These training sessions are described in more detail under Objective 1.8.

The validation for this structure is provided by the ITP process outlined under Objective 1.6. The fact that it has been put into place and is operating indicates that the discrete agencies are willing and able to communicate information on their severely handicapped learners,

and that they are willing to participate in the on-going process of work training for the student/clients.

Objective 1.8

To develop and validate procedures for training public school and community agency staff in the assessment, instruction, and curriculum development skills needed to implement the model

The staff training component of COMPETE had four goals: (a) to facilitate communication between public school and rehabilitation center staff; (b) to foster attitude change in public school and rehabilitation center staff related to both the need for community-based training and the role of the staff in this process; (c) to convey content related to vocational programming and the curriculum development processes; and (d) to solicit input into the development of the Taxonomy of Community Living Skills.

Eleven training sessions were conducted for six public school teachers and five rehabilitation center staff in Bartholomew County, and five training sessions were conducted for three public school personnel and three rehabilitation center staff in Jackson County. The training topics were:

* Introduction to supported work programs and the Project COMPETE Model.
* Methods and phases of vocational programming.
* The development of an assessment plan
* The use of COMPETE assessment instruments
* The development of a Taxonomy of Community Living Skills (8 sessions).
* The use of the Taxonomy as a template for curriculum development.

* Updates of training session participants on project accomplishments and goal setting for '85-'86, 86-87, and 87-88 school years.

In addition to whole group training sessions, six small group training sessions were conducted to provide inservice training in job coaching duties, techniques, and procedures to the Bartholomew and Jackson County teachers and the DSI job coaches. Due to the extremely rural nature of Jackson County and the resulting travel time requirements, the teacher of the class of severely/profoundly retarded youngsters was also provided with weekly or bi-weekly training on an individual basis by the project director. The teacher of the class of moderately retarded youngsters had only one child over the age of 12 in the 86-87 school year (CA 13), and elected not to participate in the project. Accordingly, no training sessions were scheduled for this class. Problems that developed due to the rural nature of this setting will be discussed under "barriers".

Data gathered at these training sessions indicates that attitude changes took place in both public school and rehabilitation center staff. Both groups expressed strong support for the training they received, and both groups changed their programs as a result of the COMPETE training and activities. In addition, both groups developed an ownership in the Taxonomy, i.e., a number of expressions of pride and accomplishment were made to the COMPETE staff by the members of these groups. Their names have been listed as contributers in the acknowledgements section of the AAMD monograph.

Objective 2:

To systematically evaluate and revise all components of the model program

Project COMPETE evaluation activities have focused on four basic problems: (a) the project's adequacy in addressing the needs of its target audiences; (b) the project's actual operation and its relation to the intended operation (as specified in the original proposal); (c) the project's impact on its target populations; and (d) the project's cost effectiveness. The main target populations for COMPETE were the student/clients in public school programs for the moderately, severely, and profoundly retarded, and the teachers and rehabilitation center staff involved with these clients. In addition, evaluation activities focused on parents of these students/clients and their potential and present employers. Environments in which data were gathered include the public school, rehabilitation center, and community-based work sites. Both quantitative and qualitative methods were used in the formative and summative evaluation of Project COMPETE.

The Evaluation section (following the detailing of objectives) presents the results of the project evaluation activities. It presents population characteristics, community demographics, evaluation of work experience placements, products, program features, and problems encountered during the conduct of the project. Since these are specified in detail in that section, they will not be repeated here. A statement on cost effectiveness will be made in this section, however.

Cost Effectiveness Data

Three different service delivery models have been used to provide work experience training for moderately and severely/profoundly retarded

student/clients in Bartholomew and Jackson Counties. These models are: (1) the original rehabilitation facility-based Student Work Adjustment Program (SWAP); (2) the community-based work experience SWAP model; and (3) the public school/rehabilitation facility cooperative plan currently in operation in Bartholomew and Jackson Counties. In this section the costs of each of these programs will be examined and contrasted for effectiveness.

The Original SWAP Model. As mentioned previously in this report, prior to the beginning of Project COMPETE activities, the Bartholomew County Public Schools and Developmental Services, Inc. jointly conducted the Student Work Adjustment Program (SWAP) that was funded through JTPA. Moderately retarded (MoMH) students who were 16 years old were bussed daily to the rehabilitation facility for approximately 3 hours of instruction in the work activities section of the workshop. The primary vocational objective of SWAP was to facilitate the transition of students from school to sheltered employment. The major vocational training activities in SWAP focused on basic assembly and packaging tasks, work habits, work attitudes, interpersonal skills, and work support skills (e.g., job applications).

Rehabilitation center staff directly involved in providing services to the SWAP students included a SWAP coordinator, and a SWAP supervisor. The total cost of SWAP for the year preceding PY-1 was $11,340 ($9.00/day per student for 140 days, or an average of $1260/student/school year). The average hourly salary for the nine students who were in the SWAP program was only $0.84.

During the time that SWAP students were at the rehabilitation facility in the original SWAP program, the senior high MoMH teacher and

his aide remained at school with the remaining 4 or 5 students who were not enrolled in SWAP or who were too young to participate. Under the original SWAP model no students received community-based work experience, and no public school graduates who had participated in SWAP in its seven-year history were competitively employed.

The community-based work experience SWAP model. By the end of PY-1, SWAP began placing students in community-based work experience sites under the aegis of COMPETE. The hourly salary for students in work experience placements was derived using Department of Labor guidelines, i.e., taking a base salary equivalent to the standard salary for an established employee doing the same job, and applying a 90% performance rate and 10% quality performance formula to that base. The job development and job training responsibilities were performed by a rehabilitation staff member called the COMPETE Site Coordinator (annual salary: $12,500, or $6.01/hr.).

By the end of COMPETE PY-2, SWAP had become a community-based work experience program under the guidance of COMPETE. From 10/85 to 10/86 nine students were placed in a total of 12 work experience sites for a total of 1006 hours (mean hours per site = 83.83). The total salary paid to students in these placements was $2575.52. The average salary per site was $214.61, or about $2.56 per hour. The total number of hours in which the job trainer was at one of the training sites was 295.50 (mean hrs./site = 24.83). Thus, including the job trainer's wages, the average site cost in student and job trainer's wages was $362.61/student. Throughout PY-2, the senior high MoMH teacher and his aide still remained at school with the students who were not participating in SWAP. Under this model, supervision and training

responsibilities for both work experience and competitive employment placements were the sole responsibility of the COMPETE site coordinator.

Public school/rehabilitation cooperative plan. At the beginning of PY-3, the senior high MoMH teacher (who earned $14.00/hr.) was released to perform job coach duties for SWAP students placed in community work experience placements. The teacher's principal agreed to arrange for appropriate supervision of students remaining at school during the time that the teacher was working in the community (from approximately 8:30 to 11:30 daily). This arrangement better utilized the teacher's time since the majority of his students were now in work experience placements. In addition, the COMPETE Coordinator supervised students in the summer SWAP program.

This arrangement permitted the COMPETE site coordinator to focus her school-year services on the senior-year SWAP student-clients, and those clients who had graduated from the public school program and were now being placed in work experience or competitive employment sites. Thirteen students were provided with work experience in this period, nine during the spring of 1987, and four in the summer of 1987. The total number of hours worked by these students was 1204.5, and they earned a total of $2003.50. The total cost in wages and supervision was $4700.72, or $361.59/student.

During this period, the four clients who were competitively employed earned a combined total of $1400.05, or an average of $350.01. The total cost of on-site supervision for the 443.15 hours for these clients 2/18/87 to 6/5/87 was $1340.05, or an average of $335.06/client. However, this figure is misleading because none of the clients remained in competitive employment. Costs will increase as adaptations are made

in the competitive training component to account for data that emerged late in the project (see the section on case studies appearing later in the report). This data indicates that insufficient supervisor training time was being expended during competitive training, and that more training time on-site is required before beginning to fade assistance.

From 11/1/87 to 7/31/87, the total cost of both work experience and competitive training was $6040.77 for seventeen student/clients. The average cost per student/client was $355.34 (again, these costs will increase as supervisor hours are increased to adapt to competitive training requirements).

Cost effectiveness summary. Each successive plan outlined above costs about hte same, but each has advantages over its predecessor. In the original SWAP model, no students received any community-based work experience programming, and the objective for public school graduates was sheltered employment. In the community-based SWAP model, students received work experiences and the objective for graduates was competitive employment. The school's involvement in this thrust was limited and utilization of the teacher was inefficient, while the rehabilitation facility's site coordinator was overburdened. In the cooperative model, the resources of both the school and rehabilitation programs are more efficiently and effectively utilized and coordinated. However, the costs of competitive placements under the COMPETE Model have yet to be accurately assessed. It can be argued, however, that even if the cooperative plan costs more, the benefits received in terms of more community-oriented services would justify the additional funds required to carry out the work.

On the surface, then, each of the successive models results in less restrictive work placments at about the same cost per work placement. Despite the fact that this statement will have to be reassesed as data accumulates on competitive placments, the COMPETE claims to be successful both in the services it provides and in its costs.

Objective 3:

To replicate the model in two additional sites in Indiana

Activities in PY-2 and 3 included the replication of the COMPETE model in Jackson County with the Seymour Public School and Jackson Developmental Industries. Accomplishments in these sites have been outlined under Objective 1 (pp. 2 - 26).

Originally, the project was also to be replicated in Jefferson County. Due to funding limitations, this replication was not carried out (a change approved by OSERS). This change is discussed under "slippages" in the next section of the report.

Objective 4:

To disseminate information on the model to professionals on the local, state, and national level

Project COMPETE staff has engaged in a number of dissemination activites during the course of the project. These activities took place at the local, state, regional and national level. This section presents a listing of those activities.

Presentations. Project COMPETE Staff made the following presentations:

LOCAL

1/27/85 Presentation to the Bartholomew Special Services

Cooperative Parents

4/24/86 Presentation to the Jackson County Parents

4/9/86 Presentation to the Bartholomew Special Services Cooperative Parents

5/8/86 Presentation to the Bartholomew Special Services Cooperative parents

5/23/86 Presentation to staff members of the Noble I Center involved in supported employment.

9/22/86 Presentation to the Bartholomew County Schools Corporation School Board

10/2/86 Training session for the rehabilitation staff at the DSI center, in Columbus, IN

10/16/86 Training session for the rehabilitation staff at the Scipio Center in Scipio, IN

12/2/86 Training session for the rehabilitation staff at the Sandstone Center in Madison, IN.

3/5/87 Presentation to the Indiana University Interdisciplinary Seminar in Mental Retardation

4/27/87 Presentation to Vocational Rehabilitation, Mental Health, and Public School staff members in Richmond, IN.

6/9/87 Presentation to the Jackson County Schools Corporation School Board

STATE

2/22/85 Indiana Federation Council for Exceptional Children Annual Meeting

4/18/85 Indiana Association for Retarded Citizens Annual Meeting

5/9/85 Vocational/Transition Conference sponsored by the Indiana Council for Administrators of Special Education.

12/5/85 Annual Meeting of the Governor's Conference on Mental Health

12/10/85 Adult Education Administrators Conference, sponsored by Division of Adult and Community Education, Indiana Department of Education.

2/21/86 Indiana Federation Council for Exceptional Children Annual Meeting

4/10/86 Indiana Association for Retarded Citizens Annual Meeting

5/2/86 State Hospital Staff Spring Symposium on Developmental Disabilities, Central State Hospital

6/4/86 Governor's Planning Council on Supported Employment

2/20/87 Indiana Federation of the Council for Exceptional Children Annual Meeting

REGIONAL

5/29/85 Vocational Rehabilitation Region V Leadership Conference on Transition (Chicago)

6/11/85 "Strategies For Change: A Conference on Transition and Supported Work" sponsored by the (Indiana) Governor's Planning Council on Developmental Disabilities and the Indiana Association for Rehabilitation Faciltities (Indianapolis).

11/19, 11/20, 11/21/85 "From School to Life" 3 regional conferences sponsored by the (Indiana) Governor's Council on Developmental Disabilities (Clarkesville, Indianapolis, and South Bend, IN).

10/29/86 AAMD Region VI Regional Conference (Fort Wayne, IN).

NATIONAL/INTERNATIONAL

11/28/84 National Network for Professional Development in Vocational Special Education.

10/10/85 The Council for Exceptional Children Division on Career Development, International Conference on Transition to Work & Life (Las Vegas)

10/9/86 Federal Transition Project Directors Meeting (Washington, D.C.)

4/22/87 Annual Meeting of the National Council for Exceptional Children (Chicago).

Advisory Committee Meetings

Project COMPETE Staff also met a number of times with the state and local advisory committees. Since the members of these advisory

committees were persons with influence, the meetings had a dissemination component in that updates of the project activities, products, and accomplishments were provided to the committee members.

State advisory Committee Meetings:

December 12, 1984
March 18, 1985
September 20, 1985
April 28, 1986
January 9, 1986
May 11, 1987

Bartholomew County Advisory Committee Meetings:

December 13, 1984
March 21, 1985
September 19, 1985
March 6, 1986
April 2, 1986
December 2, 1986

Jackson County Advisory Committee Meetings:

April 24, 1986
February 5, 1987

Newsletters and Newspaper Articles:

Spring, 1985: DSI Capsule "Project COMPETE: Making a Good Thing Better"

Summer, 1985: ARC in Indiana "Model Project Has Competitive Edge"

July, 1986: Counterpoint "Project COMPETE, Bloomington and Columbus, Indiana."

10/28/86 Article in The Republic (Columbus, IN) "Impaired Workers Find Niche: Students Get Vocational Training, Jobs in Joint Program" discusses a Project COMPETE presentation made at a local school board meeting.

Vol. 1 No. 3, 1986 Visions (Indiana Governor's Planning Council on Developmental Disabilities) "Project COMPETE: Cooperation that Works."

Spring Issue, 1986 DSI Capsule "Transitional Services Reveal Success."

Spring, 1986 IFCEC Newsletter "Transition from School to Work: The Need for Cooperative Planning Across Agencies"

Working Papers.

Project COMPETE staff developed 11 working papers on variety of areas related to project activities. Presentations at professional conferences usually centered around one or more of these working papers. At each presentation, a brief description of the project and the current working paper order form was given to each person in attendance. In addition, many letters requesting information about Project COMPETE were received by mail. The project description, the working paper order form, and a short cover letter were sent in response to all inquiries about the project. By the Fall of 1987, over 2000 working papers had been disseminated to project participants, the Project COMPETE Local and State Advisory Committees, and in response to written requests. These working papers are listed among the "Products" of the project in a subsequent section.

PROJECT SLIPPAGES

This project has had very little slippage, and the COMPETE Staff is very proud of the fact that the project achieved what it set out to do: develop a program in which the public schools and a rehabilitation center assumed joint responsibility for the vocational training of severely handicapped student/clients as they moved through the school program and on into adult life.

Project Objectives. All the original project objectives were achieved but one: in the original grant, the project developed in Bartholomew County was to be replicated in two other locations. Following approval of the continuation proposal, budgetary restrictions

on travel funds required a reduction of this objective, and the project was replicated in only one other site: Jackson County. This change in project activities was negotiated with OSERS prior to final approval of the third year continuation.

Personnel. Part way through the second year of the grant, Patricia Sitlington, one of the Co-Principal Investigators of the project, left Indiana University, whereupon, Richard Dever, the other Co-Principal Investigator, assumed responsibility for running the project. Dr. Sitlington maintained contact with the project through consultation, and was able to provide valuable advice on matters relative to assessment, structure of the vocational training part of the program.

II. Characteristics of Population and Environment

CLIENT DEMOGRAPHICS

The inclusion criteria for Project COMPETE student/clients in PY-1 were that the student be at least 12 years old and that he/she be enrolled in the programs for either the Moderately Mentally Handicapped or the Severely and Profoundly Handicapped in the Bartholomew Special Services Cooperative classes in Columbus, Indiana. As additional students reached the minimum age of 12, they were added to the target population in PY-2 and PY-3. Beginning in PY-2, the same criteria were applied to students in Jackson County, Indiana, and students who had graduated from the Columbus public school programs were maintained in the target population. The program focus for those who graduated from the school program changed from work experience to placement in competitive employment.

Table 4 presents the frequency distribution of IQ scores for the school-age target population in the Columbus Public Schools for PY-1, PY-2 and PY-3. The number of students, and their mean IQ scores remained relatively stable throughout the project. Table 5 presents similar data for school-age target students in the second project site for PY-2 and PY-3. The frequency distribution of IQ scores for students placed in competitive work sites during PY-2 and PY-3 is presented in Table 6. Clearly, both the total target population and the students placed in community-based work experience placements were individuals who are generally considered difficult to place in competitive employment.

TYPE OF COMMUNITIES SERVED

Community Demographics

The demographics relevent to Bartholomew County and the city of Columbus (Project Site 1) are presented in detail in Working Paper 85-3. Briefly, Columbus (population: 30,890) is a relatively cosmopolitan city when compared to most other cities in Southern Indiana. It has 4 city bus routes, 7 motels, and approximately 90 restaurants. It is the County Seat of Bartholomew County, which was ranked 13th in per capita income among 92 Indiana counties in 1982. The unemployment rate in Bartholomew County was 7.7% in 1986. With several large firms in the city (including Cummins Engine and Cosco Furniture), the major employment category in Columbus is manufacturing (45.07%). These firms have been very community-oriented over the years, and as a consequence of their contribuitions, Columbus calls itself "The Athens of the Prairie". Another 13.35% of the work force is employed in service occupations,

Table 4.

Frequency Distribution of IQ Scores for Target Population (CA 12 and up) in Columbus, IN.

IQ	Project Year 84-85	85-86	86-87
50>	7	8	8
45-49	3	3	5
40-44	9	10	11
35-39	4	5	5
30-34	0	0	1
25-29	4	3	3
20-24	0	0	1
<19	2	3	3
Totals	29	32	37
	Mean: 40.41	Mean: 40.50	Mean: 40.05
	Median: 41	Median: 41	Median: 41
	IQ Range: 13-56	IQ Range: 13-56	IQ Range: 13-56

Table 5.

Frequency Distribution of IQ Scores for the School-Age Target Population in Site 2 (Seymour, IN)

	Project Year	
IQ	85-86	86-87
50>	0	0
45-49	2	2
40-44	2	2
35-39	2	3
30-34	0	0
25-29	0	0
20-24	2	2
<19	0	1
Totals	8	10
Mean:	36.38	33.3
Range:	20-48	17-45

Table 6.

Frequency Distribution of Project COMPETE Target Student/Clients From Columbus and Seymour, Indiana Placed in Community Work Experience Sites During PY-2 and 3.

IQ	*f*
50>	3
45-49	2
40-44	3
35-39	3
<35	0
Total	11

Mean: 44.64

Median: 42

IQ Range: 37-55

which are projected for faster than average growth by the Indiana Employment Security Division for Economic Region 11 (which includes Bartholomew County).

Nearly half of the residents in Jackson County, Indiana, live in Seymour (population: 16,050), which became the second COMPETE site in PY-2. Although much of the area surrounding Seymour is farm land, agriculture is no longer a major employment category and is described by the Indiana Employment Security Division as a declining industry. In 1983, manufacturing employed 32.8% of the work force in the economic region surrounding Jackson County (-4.5% since 1979). In 1983, service occupations accounted for 29.5% of the work force in the same economic region (+1.5% since 1979). Although Seymour has no public transportation and only about 30 restaurants, it has 6 motels (like Columbus, Seymour is located adjacent to a major interstate highway). The unemployment rate for Jackson County is about 8.9% (1986), and Jackson County was ranked 54th (out of 92) in per capita income for Indiana counties in 1982.

Community Resources

Prior to the initiation of Project COMPETE, Developmental Services, Inc. had begun a joint project with the Bartholomew and Jackson County Schools called SWAP (Student Work Adjustment Program). Since 1979, this program had been supported by the Private Industry Council, using Job Training Partnership Act funds. Originally the program was intended to ease the transition of moderately retarded students from school to a sheltered work environment. When COMPETE began to work with the SWAP students, the DSI staff shifted its emphasis, and by PY-2, SWAP included training and work experiences in kitchen,

custodial, and grounds maintenance work at DSI, and had begun to place student/clients in community-based work experiences supervised by a DSI job trainer. By PY-3, SWAP was almost exclusively a community-based work experience program with the Columbus schools providing the work experience job trainer so that the DSI job trainer could concentrate on post-school competitive employment placements.

III. Evaluation Activities

OUTCOME EVALUATION

Work Experience Placements

From the beginning of the project, moderately mentally handicapped students who were at least 16 years old and still enrolled in school were placed in community-based work experience placements. Most work experience placements were 8-12 weeks in length, and student salaries were paid either through JTPA funds (Student Work Adjustment Program) or from funds made available through Project COMPETE. Table 7 provides a data summary for these placements. The data in this table will be referred to throughout the section on work experience placements.

Businesses, type of positions, and hours worked. The type of jobs sought by the Project COMPETE placement and training personnel were determined by the labor market trend analyses carried out in the Columbus (COMPETE Working Paper 85-3) and Seymour areas (Appendix A). Businesses which hired employees in these types of entry-level jobs were identified through the screening and employer survey process described in Working Paper 85-4. The majority of jobs in which work experience students were placed were related to janitorial, laundry, and food

service job clusters, although there were some general other jobs (e.g., laundry sorter, bottle sorter at the Coca-Cola plant).

Level of Placement Support. Job coaches in Project COMPETE kept a running total of the time they spent at each work experience site, the amount of time they were actively engaged in instruction, and the time spent observing the student and performing miscellaneous tasks. The last column of Table 7 provides a breakdown of active instructional time and total time at each work experience site. That is, active instructional time is the time the job coach spends actually instructing the student/client, as opposed to passive instructional time, which is the time the job coach spends on the job site, but not interacting with the client (e.g., in observation, assessment, and other non-interactive activities).

Unsuccessful Work Experience Placements. The majority (80%) of placements continued through the full term agreed to by the employer and Project COMPETE placement and training personnel. In Table 7, these placements are designated by the code, EWEP (end of work experience placement) under the column header, "Reason for Separation." Five work experience placements were terminated prior to the full agreed-upon term of the placement. Two placements were terminated prematurely upon parental request (one due to the death of a close relative). One work experience placement was terminated at the request of the employer because the student (who had otherwise done a good job) demonstrated unacceptable behavior (removing her clothes at work). One individual, who was placed on a trial basis prior to employment, was terminated by the employer because of slow work rate. Finally, one student resigned a

Table 7
Summary of Work Experience Placements in Project COMPETE.

Client	Business	Position	How Job Obtained?	Start/End	Cum. Hrs. Worked	Cum. Wages Earned	Reason for Separation	Trainer Interv. Active/Total
Alan	Koala Center	Building and Grounds Custodian	Survey	2/13/86-4/25/86	80.25	$215.95 COMPETE	EWEP*	7.75 Hr/20.5
April	St. Columba Catholic Church	Custodian	Survey	6/16/86-8/8/86	90	$91.36 SWAP	EWEP	25 Hr/32.25
April	Columbus Convalescent Center	Laundry Aide	Survey	1/5/87-3/17/87	98.5	$179.43 SWAP	Terminated (Unacceptable behavior)	12 Hr/23.5
April	Columbus Nursing Home	Laundry Aide	Survey	6/15/87-7/31/87	92	$85.96 SWAP	EWEP	11 Hr./24
Becky	Columbus Convalescent Center	Dishroom Aide	Survey	6/23/86-8/8/86	80.75	$215.24 SWAP	EWEP	15.25 Hr/34
Becky	Koala Center	Dietary Aide	Survey	2/9/87-5/1/87	170.25	$414.62 COMPETE	EWEP	9.75 Hr/21
Brad	First United Methodist Church	Custodian	Survey	11/24/86-1/31/87	81	$389.79 COMPETE	EWEP	6.5 Hr/15.5
Dennis	Coca-Cola Bottling Co.	Bottle Sorter	Survey	10/21/85-12/20/85	122.25	$232.65 COMPETE	EWEP	12.75 Hr/31.5
Dennis	IUPUI Columbus	Custodian	Survey	6/30/86-8/8/86	71	$185.40 SWAP	EWEP	6 Hr/16
Dennis	Koala Center	Dietary Aide	Survey	10/20/86-1/31/87	167.50	$464.09 SWAP	EWEP	16.5 Hr/23.75

Table 7 (Cont.)

Client	Business	Position	How Job Obtained?	Start/End	Cum. Hrs. Worked	Cum. Wages Earned	Reason for Separation	Trainer/Interv. Active/Total
Dennis	Columbus City Animal Shelter	Kennel Assistant	Survey	3/16/87-4/13/87	46.50	$126.22 SWAP	Resigned (Took competitive job)	2.25 Hr/4.25
Don	Koala Center	Dietary Aide	Survey	1/13/87-5/23/86	214.5	$498.37 COMPETE	EWEP	12 Hr/26.5
Don	The Left Bank	Dishwasher	Survey	6/23/86-8/8/86	93.5	$262.81 SWAP	EWEP	8.25 Hr/16.5
Gary	Jackson Elem. School	Custodian	School Contact	6/16/86-8/8/86	103	$324.65 SWAP	EWEP	23 Hr/61.5
Gary	Harry & Faye's Cafe	Dishwasher	Survey	11/10/86-1/16/87	98.25	$381.41 COMPETE	EWEP	10.75 Hr/25
LaDonna	Columbus City Animal Shelter	Kennel Assistant	Survey	11/13/85-2/21/86	120.5	$269.11 COMPETE	EWEP	11.75 Hr/44.5
LaDonna	Koala Center	Dietary Aide	Survey	6/16/86-8/8/86	82.5	$169.27 SWAP	EWEP	9 Hr/24.75
LaDonna	YMCA	Custodian	Survey	3/30/87-5/22/87	92.5	$205.62 SWAP	EWEP	5 Hr/10
LaDonna	Knight's Inn	Laundry Aide	Survey	6/8/87-7/31/87	98.5	$103.28 SWAP	EWEP	.75 Hr./23.55
Jenny	Columbus Animal Center	Custodian	Survey	7/17/87-7/31/87	16	$14.60 SWAP	EWEP	6 Hr./12
Michelle	Convenient Food Mart	Stock Clerk	Survey	6/16/86-6/25/86	16.5	$31.32 SWAP	Parental Withdrawal	5.25 Hr/13.75

Table 7 (Cont.)

Client	Business	Position	How Obtained?	Start/End	Cum. Hours Worked	Cum Wages Earned	Reason for Separation	Trainer/Interven Active/Total
Steve	Columbus City Animal Shelter	Kennel Assistant	Survey	6/23/86-7/18/86	48	$88.53 SWAP	Parental Withdrawal Family Emer.	7 Hr/25
Steve	Columbus City Animal Shelter	Kennel Assistant	Survey	11/10/86-1/16/87	81	$198.37 SWAP	EWEP	16.5 Hr/19.75
Steve	Columbus Nursing Home	Kitchen Helper	Survey	3/30/87-5/22/87	104.75	$207.08 SWAP	EWEP	16.5 Hr/19.75
Steve	Koala Center	Dietary Aide	Survey	6/8/87-7/31/87	58	$161.12 SWAP	EWEP	7 Hr./10

* EWEP: End of Work Experience Placement.

work experience placement to enter supported employment in another business.

Competitive Employment

Four post-school clients were placed in competitive employment during FY-3 (Table 8). All four were hired as dishwashers, three in restaurants and one at a nursing home. Together, they worked a total of 443.15 hours and earned $1400.05. All four clients were terminated by their employers in less than two months because of slow work rate and/or being off-task. This fact will be a major topic of discussion under process evaluation in the next section.

Barriers

A barrier was encountered in that some student/clients who were eligible to participate in COMPETE activities refused in one way or another. For example, two parents refused to allow their children to participate in community work training. Of these, one parent in Bartholomew County refused services entirely, while a set of parents in Jackson County allowed their child to participate in SWAP, but only in the workshop. In addition, seven student/clients who had started in the COMPETE Program left it: of these, five moved to other cities, and two more dropped out of the program but remained in the area. Thus, a total of nine potential student/clients in Bartholomew and Jackson Counties did not participate in COMPETE activities.

Products

Four different products were developed by the COMPETE Staff: (1) The Taxonomy of Community Living Skills; (2) The Labor Market Survey; (3) A survey of parental expectations relative to vocational training

Table 8
Summary of Competitive Employment Placements in Project COMPETE.

Client	Business	Position	How Job Obtained?	Start/End	Cum. Hrs. Worked	Cum. Wages Earned	Reason for Separation	Trainer Interv. Active/Total
Alan	Ketchum's Kornucopia	Dishwasher	Voc. Skills Training Placement (DSI kitchen)	2/18/87-3/29/87	87.65	$293.63 EMPLOYER	Terminated (slow work rate)	14.25 Hr/38
Dennis	Columbus Holiday Inn	Dishwasher	Placement Voc. Ed. Grant	4/16/87-	259.00	$867.65 EMPLOYER	Terminated (slow work rate. Off-task.)	55.75 Hr/108
Gary	The Station	Dishwasher	PWI Placement	2/25/87-3/6/87	36.0	$120.60 EMPLOYER	Terminated (off-task)	21 Hr/29
Don	Four Seasons Health Care Center	Dishwasher	Survey	5/17/87-6/5/87	60.5	118.17 COMPETE	Terminated (slow work rate)	32.25 Hr/48

for severely handicapped youngsters; and (4) eleven working papers that detailed these and other aspects of the COMPETE experience.

The Taxonomy of Community Living Skills. By itself, the taxonomy is not a curriculum, but rather, a community referenced, comprehensive, organized statement of instructional goals that will provide guidance for those who must develop curricula for severely handicapped persons. Work on this manual actually began prior to the startup of Project COMPETE , when the Principal Investigator was asked to develop a curriculum for the Muscatatuck Developmental Center, in Butlerville, Indiana. The committee assembled for this effort soon realized that there was no comprehensive, commonly agreed-upon set of goals available to guide the instruction of severely handicapped persons, and set out to develop such a statement.

Four years later, the work was still incomplete, despite steady efforts on the part of the Muscatatuck and several other groups. When Project COMPETE began, a major part of the training of both the Bartholomew teachers and rehabilitation personnel took place in group sessions. Many of these sessions were devoted to developing an understanding of the goals of community instruction. Major steps to completion of the taxonomy took place during these sessions, and intense efforts on the part of both the COMPETE Staff and the trainees resulted in a written version of the taxonomy (COMPETE Working Papers 85-1 & 85-2). The Governor's Planning Council on Developmental Disabilities provided funds to print a number of copies for distribution at the conferences run by COMPETE Staff and sponsored by the Governor's Council. Some of these copies were reserved and distributed to respondents as part of a national survey on the taxonomy (COMPETE

Working Paper 87-5). Responses from this survey were used to develop a final version of the taxonomy. It has now been accepted by the American Association on Mental Deficiency for publication in the AAMD monograph series. Publication date is expected to be in the Fall of 1987.

The Labor Market and Employer Surveys. The labor market and employer surveys are a second major product (COMPETE Working Papers 85-3, 85-4, and 87-2). These surveys provide a comprehensive picture of the work potential for severely handicapped persons in Bartholomew and Jackson Counties. Their value is great, and they have been replicated in three other counties in Indiana. Utilizing a number of resources, the surveys identified the businesses in the two target counties that have jobs which difficult-to-place persons would be able to perform. The employers in these businesses were then surveyed on their attitudes toward hiring handicapped persons, and the jobs themselves were analyzed where appropriate.

The information obtained in these surveys is useful in several respects: (1) it has provided the job training staff in these counties with a list of known businesses in which severely handicapped persons might find employment at some time; (2) it provided Project COMPETE staff with valuable information on worker characteristics employers seek when hiring persons to work in their businesses (information which was used to develop training programs for the student/clients); and (3) it provided valuable information on the most likely areas in which to provide training for severely handicapped persons in the future (e.g., food service and janitorial skills will probably be in demand for the next 5 - 10 years, but bellhop jobs will seldom become available).

The labor market and employer surveys are unique, and provide information and techniques that are not available elsewhere. This information is important to the structure of student/client training programs, and the techniques used in the Project COMPETE surveys have been used by other agencies in other locations.

Parent Survey. A survey of parents was conducted by COMPETE Staff (COMPETE Working Paper 87-6). This survey was similar to that conducted by Pentecost (Wehman & Hill, 1980) for Project Employability. However, the Project COMPETE Survey differed in three significant ways: (1) it was conducted on parents of school-aged children; (2) it sought additional information; and (3) data for parents of children under the age of 12 was analyzed separately from those for parents of children over twelve.

The results of this survey showed that parents with children in Project COMPETE generally wanted their children to get jobs when they left school. However, the parents of children over twelve years of age were resigned to sending them to the workshop, while the parents of children under twelve generally lacked information on the job training opportunities available.

The information from the survey was utilized in structuring the ITP portions of the Individualized Transition Plan (ITP) portions of the Annual Case Review conferences. A major part of the ITP conference is devoted to informing the parents about vocational training options for their children, and other information pertaining to the public school and rehabilitation center work training options. Because of the structure of the ITP process, parents now begin to get this information when their children are about age 12.

Working Papers. Eleven working papers were developed by COMPETE Staff. They are as follows:

(#85-1) A Taxonomy of Instructional Objectives for Developmentally Disabled Persons: Vocational Domain.

(#85-2) A Taxonomy of Instructional Objectives for Developmentally Disabled Persons: Personal Maintenance and Development; Homemaking and Community Life; Leisure; and Travel Domains.

(#85-3) Conducting A Labor Market Trend Analysis: Process and Results.

(#85-4) Conducting An Analysis of Community Work Environments Relative to the Employment of Severely Handicapped Persons.

(#85-5) Experimental Curriculum for Classes for Severely and Profoundly Retarded Learners.

(#85-6) An Analysis of Employer Rankings Relative to the Employment of Retarded Persons.

(#87-1) (Position Paper) Effective Transition Programming for Severely Handicapped Individuals.

(#87-2) Severely Handicapped Youth Competing in the Labor Market: Implementation and Effectiveness Report From the First Two Years of Project COMPETE.

(#87-3) An Analysis of Occupational Requirements Relative to the Employment of Severely Handicapped Individuals.

(#87-4) A National Survey on the Taxonomy of Community Living Skills.

(#87-5) Evaluating Work Performance by Severely Handicapped Students in Work Experience Settings

(87-6) A Survey of Parent Perceptions of Work Training for Their Severely Handicapped Children

PROCESS EVALUATION

Program Features: Types of Service

Three distinct types of services were provided by Project COMPETE: the results of the labor market survey, the training of staff, and the training of student/clients.

The Labor Market and Community Survey. This survey identified the set of employers in Bartholomew and Jackson Counties who had jobs judged

to be appropriate for moderately or severely mentally handicapped persons following training. The manner in which this survey was conducted and its results are presented in detail in COMPETE Working Paper 85-3, 85-4, and 87-2. Briefly, 122 potential jobs in Bartholomew County, and 47 potential jobs in Jackson County were identified. Although most of these jobs are filled at any given point in time, the fact that they could be performed by severely handicapped persons means that a pool of potential jobs has now been identified in these two counties.

In addition, the types of training provided to student/clients are based on information developed in the labor market and employer surveys. Two major types of information were: (1) local employers in entry level minimum wage jobs are very much concerned applicant work habits and attitudes, and are willing to hire retarded persons who are willing and able to work; and (2) certain classes of work are in growth patterns and other classes are in decline in these two counties. For example, manufacturing jobs are dwindling in the Bartholomew and Jackson areas, but jobs in food service, janitorial and general labor areas were increasing, and will continue to do so for the next several years. These two sets of information were very influential in developing the instructional programs for severely handicapped students in the Bartholomew and Jackson County programs.

Staff Training. The training provided to the staff in both sites was extensive, but was conducted differently in each location. The project began in Bartholomew County, and much of the first year of the project was devoted to development of the Taxonomy of Community Living Skills and the labor market analysis. Public school and rehabilitation

center staff were brought together for eleven training sessions, eight of which were "group think" sessions on goal specification. Elementary level teachers were included in these sessions, as was the high school teacher of mildly handicapped youth (as a bonus to the school system). These sessions were conducted by the Principal Investigator, who had been working on goal specification for several years before the project began. The sessions had several results: (a) it gave the participants a sense of the common problems faced by both rehabilitation and public school personel; (b) it gave the participants a sense of the relative contribution each agency can make; (c) it gave the participants a sense of common purpose; and (d) it gave the participants a sense of "ownership" in the final version of the taxonomy. The latter is very important to the success of the project, because once all the participants agreed on the goals of instruction, it became easy for them to cooperate in developing individualized programs of instruction that led toward the goals.

In Jackson County, the situation was different: (a) there were only two teachers who worked with the severely handicapped students, and (b) the taxonomy was complete, i.e., the project now had a comprehensive goal statement. A different approach was required and staff training in Jackson County became much more individualized. The training began in September, 1985, and the teachers and rehabilitation center staff were brought together five times for discussions on the goals of the project and methods of attaining those goals (teachers of the mildly handicapped were included in these sessions as a bonus to the school system). Then, training became individualized, and the two teachers of the severely handicapped were visited at least every other week (and often every

week) by the Principal Investigator. These individual sessions were used to develop programs of instruction for the students. When school ended in the spring of 1986, the teacher of the S/P class was hired to perform job coaching duties in the Summer SWAP program. In the fall, the class of moderately retarded students had only one student aged thirteen, and the teacher of that class elected not to participate in the project. The teacher of the S/P class, however, participated enthusiastically, and together, she and the Principal Investigator developed a completely new program of instruction for her class.

Table 9 presents data on attitudes of the trainees at points in the program. Since taining at the two sites was carried out separately, and since data was collected separately at each site, the results for the two sites are presented individually. The only exception is for the last training session, when staff from both sites were brought together for the first and last time.

In Table 9, the higher the mean score, the more strongly the respondent agreed with the statement. Over time, the participants tended to agree more with the statement that community work training was possible for severely retarded persons, that public schools have a role in providing that training, and to state that the ultimate employment training goal for this group is competitive employment. No rehabilitation center personnel were able to be present at the final training session of PY 3, a fact which may have skewed the data for this session. In addition, across sessions, some persons were absent from one or more sessions, again presenting the possibility of skewed data.

Student/Client Training is carried out by both public school and rehabilitation center personnel. The public school personnel are

responsible for initial work experience placements for student/clients aged 16 - 17, while the rehabilitation center personnel have responsibility for training student/clients in their last year of school and in post-school supported employment and work experience placements.

Program Characteristics

In the COMPETE system, programming for employment training begins at a very early age in the school systems: the results of the employer survey (COMPETE Working Papers 87-2) showed that employers perceive work habits, work attitudes and interpersonal skills as being very important in their hiring and firing decisions. Accordingly, the programs for elementary age students now include training in these areas, along with programs of physical conditioning and the concept of "job". At age twelve employment training is discussed in the ACRs, and work experiences within the school setting are defined and assigned to individual students. At age sixteen, students are placed on the rolls of Vocational Rehabilitation, and vocational evaluations are performed. At this point the ACR focuses on developing individual work experiences in the community. The classroom teacher provides the initial job coaching during the school year, and rehabilitation agency personnel begin providing it when the student/client reaches his/her last year in high school. The rehabilitation agency staff also provide it in the summer months when school is not in session. When the student/client graduates from the public schools at age eighteen, he/she is assigned to the workshop, is given final work evaluations, and may be placed in supported employment in competitive settings, or assigned to further work training as required.

Table 9.

Responses of School and Rehabilitation Center Staff to Evaluation Questions at Points in the Training Process

1. A majority of communities cannot provide opportunities for retarded youth to have work experience.

	SA-5	A-4	U-3	D-2	SD-1	Mean
Columbus (PY-1, Fall)	2	2	3	3	1	3.1
Columbus (PY-1, Spring)	0	1	2	3	5	1.9
Columbus (PY-2, Fall)	1	1	0	5	4	2.1
Seymour (PY-2, Spring)	0	0	1	5	3	1.8
Both Sites (PY-3, Spring)	0	1	0	3	8	1.5

2. The need for students to spend time away from school during the day to secure work experience causes more problems than it solves.

	SA-5	A-4	U-3	D-2	SD-1	Mean
Columbus (PY-1, Fall)	0	0	1	7	3	1.8
Columbus (PY-1, Sring)	0	0	1	6	4	1.7
Columbus (PY-2, Fall)	0	0	1	8	2	1.9
Seymour (PY-2, Spring)	0	0	1	1	7	1.3
Both Sites (PY-3, Spring)	0	1	1	5	5	1.8

3. Schools provide students with ample occupational information for career planning.

	SA-5	A-4	U-3	D-2	SD-1	Mean
Columbus (PY-1, Fall)	0	2	2	5	2	2.4
Columbus (PY-1, Sring)	0	1	0	6	4	1.8
Columbus (PY-2, Fall)	0	0	1	8	2	1.9
Seymour (PY-2, Spring)	0	1	0	7	1	2.1
Both Sites (PY-3, Spring)	0	0	3	7	2	2.1

4. Career placement for retarded youth is a responsibility of the schools.

	SA-5	A-4	U-3	D-2	SD-1	Mean
Columbus (PY-1, Fall)	0	2	7	2	0	3.0
Columbus (PY-1, Spring)	0	5	3	3	0	3.2
Columbus (PY-2, Fall)	1	4	4	2	0	3.4
Seymour (PY-2, Spring)	1	0	4	3	1	2.7
Both Sites (PY-3, Spring)	2	1	4	5	0	2.7

Table 9 (Cont.)

5. The training of retarded youth for occupations is more the responsibility of vocational schools and sheltered workshops than the public secondary schools.

	SA-5	A-4	U-3	D-2	SD-1	Mean
Columbus (PY-1, Fall)	0	3	2	6	0	2.7
Columbus (PY-1, Spring)	0	2	1	6	2	2.3
Columbus (PY-2, Fall)	0	3	4	4	0	2.9
Seymour (PY-2, Spring)	1	0	3	4	1	2.6
Both Sites (PY-3, Spring)	0	1	1	8	2	2.1

6. Schools are currently doing an adequate job of preparing retarded youth for work.

	SA-5	A-4	U-3	D-2	SD-1	Mean
Columbus (PY-1, Fall)	0	0	2	7	2	2.0
Columbus (PY-1, Spring)	0	1	0	7	3	1.9
Columbus (PY-2, Fall)	0	0	2	6	3	1.9
Seymour (PY-2, Spring)	0	1	1	4	3	2.0
Both Sites (PY-3, Spring)	0	1	3	6	2	2.3

7. Preparation for life should center on learning academic subjects.

	SA-5	A-4	U-3	D-2	SD-1	Mean
Columbus (PY-1, Fall)	0	0	0	8	3	1.7
Columbus (PY-1, Spring)	0	0	0	9	2	1.8
Columbus (PY-2, Fall)	0	1	0	7	3	1.9
Seymour (PY-2, Spring)	0	0	0	6	3	1.7
Both Sites (PY-3, Spring)	0	0	0	7	5	1.6

8. School programs are instrumental in helping retarded youth decide upon careers.

	SA-5	A-4	U-3	D-2	SD-1	Mean
Columbus (PY-1, Fall)	0	5	2	3	1	3.0
Columbus (PY-1, Spring)	0	3	4	3	1	2.8
Columbus (PY-2, Fall)	0	5	3	3	0	3.2
Seymour (PY-2, Spring)	1	4	2	2	0	3.4
Both Sites (PY-3, Spring)	1	3	2	3	3	2.7

Table 9 (Cont.)

9. It is difficult to learn an occupation without having experience in that occupation.

	SA-5	A-4	U-3	D-2	SD-1	Mean
Columbus (PY-1, Fall)	3	5	0	2	1	3.6
Columbus (PY-1, Spring)	2	6	2	1	0	3.8
Columbus (PY-2, Fall)	3	6	0	2	0	3.9
Seymour (PY-2, Spring)	4	4	0	1	0	4.2
Both Sites (PY-3, Spring)	5	6	1	0	0	4.3

10. Moderately and severely retarded youth should not work in the community during school hours.

	SA-5	A-4	U-3	D-2	SD-1	Mean
Columbus (PY-1, Fall)	0	0	1	5	5	1.6
Columbus (PY-1, Spring)	0	0	1	5	5	1.6
Columbus (PY-2, Fall)	0	2	2	3	4	2.2
Seymour (PY-2, Spring)	0	0	0	4	5	1.4
Both Sites (PY-3, Spring)	0	0	0	7	5	1.6

11. Moderately and severely retarded youth should be allowed to spend time working in a sheltered workshop during school hours.

	SA-5	A-4	U-3	D-2	SD-1	Mean
Columbus (PY-1, Fall)	5	6	0	0	0	4.4
Columbus (PY-1, Spring)	2	8	0	1	0	4.0
Columbus (PY-2, Fall)	4	6	0	1	0	4.2
Seymour (PY-2, Spring)	4	3	1	1	0	4.1
Both Sites (PY-3, Spring)	3	8	1	0	0	4.2

12. Job training in school can help moderately and severely retarded youth make the transition from school to work.

	SA-5	A-4	U-3	D-2	SD-1	Mean
Columbus (PY-1, Fall)	2	8	0	1	0	4.0
Columbus (PY-1, Spring)	2	8	0	1	0	4.0
Columbus (PY-2, Fall)	2	9	0	0	0	4.2
Seymour (PY-2, Spring)	5	4	0	0	0	4.6
Both Sites (PY-3, Spring)	5	6	1	0	0	4.3

Table 9 (Cont.)

13. Public school teachers can carry out effective job training for low-functioning youth.

	SA-5	A-4	U-3	D-2	SD-1	Mean
Columbus (PY-1, Fall)	1	4	3	2	1	3.2
Columbus (PY-1, Spring)	1	8	2	0	0	3.9
Columbus (PY-2, Fall)	1	6	1	3	0	3.5
Seymour (PY-2, Spring)	2	5	2	0	0	4.0
Both Sites (PY-3, Spring)	3	6	2	1	0	3.9

14. There is little or no connection between the programs carried out in public schools and those carried out in sheltered workshops.

	SA-5	A-4	U-3	D-2	SD-1	Mean
Columbus (PY-1, Fall)	0	4	5	2	0	3.2
Columbus (PY-1, Spring)	0	2	3	6	0	2.6
Columbus (PY-2, Fall)	0	3	2	5	1	2.6
Seymour (PY-2, Spring)	0	1	0	4	4	1.8
Both Sites (PY-3, Spring)	0	1	10	1	0	3.0

15. Administrative barriers prevent effective cooperation between public school and sheltered workshops.

	SA-5	A-4	U-3	D-2	SD-1	Mean
Columbus (PY-1, Fall)	2	5	1	3	0	3.5
Columbus (PY-1, Spring)	2	5	3	1	0	3.7
Columbus (PY-2, Fall)	0	9	2	0	0	3.8
Seymour (PY-2, Spring)	1	1	5	2	0	3.1
Both Sites (PY-3, Spring)	1	6	2	3	0	3.4

16. The ultimate goal for most of my students is:

	Columbus (PY-1, F)	Columbus (PY-1, S)	Columbus (PY-2, F)	Seymour (PY-2, S)	Both Sites (PY-3, S)
Stay at home	1	0	0	0	0
Work activity center	1	2	1	0	0
Sheltered employment	4	1	1	1	1
Community-based employment	5	8	9	7	7

Initial work experience usually begins at about the age of twelve, when students are taught to perform tasks within the physical confines of the school building. These jobs are on the order of emptying wastebaskets in the administrative offices, cleaning tables in the cafeteria, and delivering messages to other teachers. In addition, some classroom tasks are used to teach vocational skills and certain work habits and attitudes. When the student/client reaches age fifteen, plans are made to perform jobs in community work experience sites. Initial placements are made at age 16 in sites that are maintained from year-to-year as work experience sites, e.g., the Columbus City Animal Shelter (cleaning cat cages and dog runs), and the Koala Center (food service). By the time the student/client graduates from high school, he/she has had several work experience sites, and may be deemed ready for competitive employment placement. If so, he/she is put into one of the supported employment programs and placed into a job with a rehabilitation center job coach. If not, further work experience placments are made until the student/client can be placed into competitive employment.

Supported employment follow-along is provided by the rehabilitation center. The continuity provided by the joint programming aspects of the ITP process is worthy of note: because both public school and rehabilitation center personnel participate in the setting of goals and objectives, both have a "stake" in providing continuous and comprehensive programming.

Outside Funding. Two sources of outside funding have been used in running the COMPETE Project and its derivatives: (1) JTPA; and (2) the Governor's Council on Developmental Disabilities.

1. JTPA Funds. These funds are used to support the SWAP Program. In order to maintain as many school-year instructional gains as possible across the summer months, JTPA funds, administered by the Private Industry Council, are used to support COMPETE activities during the summer months. Each year the families who wish to have their children continue the school year training send their children to the workshop, from whence they go to community work experience sites. The work experience training they receive during the summer months is identical to that provided during the academic year except for the fact that the student/clients assemble at the rehabilitation center workshop rather than at the school.

2. The Governor's Planning Council on Developmental Disabilities. In the first year of the project, this body asked COMPETE personnel to conduct a statewide training program for school and rehabilitation center personnel. The funds used for the resulting set of conferences ("From School to Life") were Pl 94-527 monies. The conferences were held on November 19, 20, and 21 in three different locations in Indiana: Clarkesville, Indianapolis, and South Bend (see Appendix C). Various personnel involved in providing transition services (including Drs. Dever and Sitlington, as well as Joseph Easterday, who was the Research Associate in the project for most of its duration) discussed transition issues. In addition, personnel from the state departments of Public Instruction, Vocational Rehabilitation, Mental Health, and personnel from the Social Security Administration and the Indiana Association of Rehabilitation Facilities presented aspects of transition from funding and administrative points of view. The conferences were very successful in bringing transition issues to the attention of most local agencies

serving the severely handicapped. On completion of these sessions, some unused funds were cleared for use by COMPETE personnel for data gathering and analysis purposes. This move allowed the project to hire two additional graduate students to complete the employer market survey in Jackson County, by providing both hourly salaries and travel funds.

Consultation was provided to the project by Dr. Patricia Sitlington, who was originally one of the co-principal investigators of Project COMPETE. This consultancy was approved by OSERS when Dr. Sitlington resigned from Indiana University to go to the Iowa Department of Public Instruction.

Goals held in Common by Discrete Agencies

The COMPETE Staff believes that the major factor underlying the Successful Project COMPETE interagency agreement is the fact that the staffs of the agencies in Bartholomew and Jackson Counties now hold goals in common for their student/clients. Much of the credit for this perceptual set must go to the activities of the agency staffs while developing the taxonomy. The fact that both staffs have come to hold instructional goals in common allowed the discrete agencies to begin to understand the place of each agency in the vocational training process. This focus allowed each agency to carry out the actions most suited to the agency, and not to be distracted by irrelevent variables. In the early stages of the project, the typical territorial disputes were evident between the public schools and the rehabilitation center. Since the acceptance of the goals for the student/clients by both groups, however, there has been a remarkable degree of cooperation between the public schools and the rehabilitation agency, and an astonishing lack of

bickering over territory. COMPETE Staff attribute this behavior to the fact that both agencies hold student/client goals in common.

Problem Definition

Project COMPETE set out to develop cooperative programs between the public schools and community rehabilitation agencies. In this endeavor, the project was very successful. Not only were the cooperative programs developed, they will continue to run after the federal funds are terminated. Attaining the objectives, however, was not particularly easy. Several problems were encountered during the conduct of the project that influenced the final form of Project COMPETE. These problems and the issues they raise will be discussed in this section.

Several factors that have presented barriers and/or problems in other projects did not impede implementation of Project COMPETE. For example, Supplemental Security Income (SSI), which is cited many times in the literature as providing a disincentive to placement in competitive employment, was not an issue for the families participating in COMPETE. One parent originally said that her child would be removed from work training when the termination of SSI funds was at hand, but changed her mind when her daughter began to come home from work talking excitedly about the day's happenings. Similarly, obtaining sufficient work experience sites proved to be no problem throughout the project years, and working within the limitations imposed by the school day presented few problems for employers and training personnel. Even transportation turned out to present only minor problems, all of which were easily resolved.

There were other problems, however, which may be specific to the COMPETE experience because the project was unique in that three different factors came together in one place: (a) it attempted to bring together discrete agencies to develop common programming; (b) it concentrated on providing services in a rural area; and (c) it attempted to provide a continuum of work experience and competitive job training, placement, and followalong. The problems that were found within the confluence of factors associated with these areas indicates that training student/clients to make the transition from school to work is not a simple matter that can be approached within the context of a single agency or under the aegis of a single program. Cooperative programs are indeed possible, but complex factors require resolution prior to bringing them to fruition.

Population Density. Professionals who work in urban areas seldom deal with the relationship of population density to the prevalence of handicapped persons. One of the COMPETE sites was in a rural area, and if the COMPETE experience can be used as an indicator, rural and semi-rural areas have uneven distributions of severely handicapped individuals. Thus, low density population areas present a unique set of service delivery problems. This possibility was brought home to the COMPETE Staff after the Jackson County site was selected and work there was underway.

COMPETE originated in Bartholomew County. In comparison to the sites of many other projects across the country, it is not large by many standards: the whole of Bartholomew County has a total population of only about 65,000, nearly half of whom live in Columbus (the county

seat). For all its lack of size, Columbus is a sophisticated area, with several large manufacturers that have been very community-oriented over the years. It is an attractive community in which to live, and for the three years of the duration of the project the subject population was stable.

On the other hand, Jackson County is quite different: It is about half the size of Bartholomew, with a total population of about only 37,000. The largest city, Seymour, has a population of about 16,000 (figures tend to fluctuate due to manufacturing layoffs and rehirings in recent years). The county is very rural, with some towns in the county having populations of less than 100 persons. The rural nature of the county was clear to COMPETE Staff prior to begining the project there, but the effects of the low population density on the conduct of the project were unexpected.

Before selecting Jackson County as a COMPETE site, the student rolls of severely handicapped individuals in the Jackson County schools were inspected. Perusal of these lists allowed the staff to make the judgement that Jackson County would make a good replication site. In addition, the county had an active vocational program for special-needs learners, a coordinator of special education who was enthusiastic about participating in the project, and two groups of severely handicapped students who appeared to be eligible for the COMPETE Program. Of these groups, one was in a class of eleven moderately retarded youngsters, and the other was in a class of nine severely/profoundly retarded youngsters. These classes, which are one-room K-12 placements, were both located in regular public school buildings in Seymour. The Jackson

rehabilitation center is Jackson Developmental Industries (JDI). It is supervised by Developmental Services, Inc., in Bartholomew County. Its staff expressed interest in working with the project. In short, the county appeared to provide an appropriate location for the project replication.

Training of the Jackson County staff began in September, 1986. At that time, the class of moderately retarded students had four 17-18 year old students in the SWAP program, as well as two students who were 13-15 years old. The class of severely and profoundly retarded students had no children above the age of 15, but several who were twelve to fourteen. These younger students were deemed ready to begin work experiences within the school setting.

In June of 1986, the four oldest moderately retarded students graduated from school. The COMPETE Staff planned to begin work experience training of these student/clients in the Summer SWAP program, but only two of these students became available for training. Of the others, one went to work on the family farm, and the parents of the other refused to allow their daughter to participate in the training.

When school started up in the fall, the COMPETE Staff found only one moderately retarded student aged twelve left in the Jackson school program, and only two severely/profoundly retarded students over the age of 15. Several families had moved, and one youngster was sent to a group home in another community. Suddenly, the project had to deal with what may well be a common phenomenon in rural and semi-rural areas: the severely handicapped youngsters in Jackson County were not evenly distributed according to age. There are a number of students in some age

groups, but in other age groups there were none. In the case of the Jackson public schools, one year there were four moderately retarded young persons in need of community job training, and the next year there were none who were old enough for it.

The COMPETE Staff believes that this event, which could have been viewed as detrimental to the project, actually helped bring it to fruition: The fact presented a problem that required action that eventually helped bring the project in both Bartholomew and Jackson Counties to fruition. The problem that COMPETE had to address was that rural and semi-rural areas have populations whose training needs cannot be addressed in a uniform manner. The assignment of personnel to conduct the necessary programming is difficult to address under these conditions, i.e., if four public school learners require community vocational training in one year, and then no learners require it for the next two or three years, how can personnel supported by scarce resources be assigned to do the training? This problem was presented to the COMPETE State Advisory Committee and both Local Advisory Committees for discussion and input. The members of these committees were intrigued by the problem, and suggested several different approaches.

From these discussions emerged the final form of the Individual Transition Program (ITP) Process that responds to the major goal of Project COMPETE. The fact that DSI personnel attend the public school annual case reviews beginning when the students are age twelve is important. If both the public schools and the rehabilitation center know that one, two, or more youngsters will require training in four years, plans can be made to provide it. Much planning can be carried out prior

to the time the need for service provision arises. For example, the discussions on the two severely/profoundly retarded youngsters in Seymour who turned sixteen during PY-3 centered on how to provide vocational training to them. The staffs had plenty of time to consider the range of options, and to plan according to client needs, and everyone agreed that a solution had to be found.

Another effect of the population density problem involved COMPETE staff training efforts in the project. Whereas in Bartholomew County the focus had been on developing common goals and applying them to training programs for the moderately and severely handicapped. In Jackson County, the focus of COMPETE training efforts became one of developing work experiences for severely/profoundly (S/P) retarded youngsters. The approach used was to turn the entire junior high school in which the S/P class was located into a training site. A large peer tutoring program was developed, and all S/P youngsters over age 12 are provided with jobs in the school building. These jobs are mostly of a janitorial nature (food service work in the schools was not an option because local school policy prohibits students from the school kitchens). The S/P program is now radically different from what it was prior to the introduction of COMPETE. What was once a totally self-contained class is now a program in which the students go to other parts of the building at various times, and students from the regular junior high program accompany S/P students individually to non-academic school functions such as lunch, recesses, and assemblies. In these settings, students from the regular junior high program model socially appropriate behaviors. The program has become a model for other districts in the southern part of the

state, and is available to other schools for replication. From the perspective of COMPETE, all the programming in this school is aimed at assisting the S/P students to move out into the community when they are old enough to do so.

Funding. Another problem area involved funding. It proved to be impossible to obtain funds from the SEA for the purpose of hiring job coaches for the Bartholomew and Jackson schools because the State Office of Special Education was supporting another OSERS transition training project, and was using its available funds to do so. No funds were allocated to support COMPETE activities, and the State of Indiana does not support special education at a sufficiently high level to allow small LEAs to shift funds easily in order to hire additional personnel for job coaching. Thus, the Bartholomew County Special Services Cooperative (BCSSC) did not have sufficient funds available for extra staff to carry out instruction in the community.

By PY-2, the job coach paid from COMPETE funds (a DSI employee) was working with as many as four student/clients in different work experience sites in two counties simultaneously. The work was time consuming, and already soome of the student/clients who had graduated from the public school program were ready to be placed in competitive employment.

Since the intent of the project was to develop a cooperative system, it was imperative to find a way to allow the existing public school staff to provide instruction in the community. The use of COMPETE funds to free up the senior high school teacher of the moderately retarded to go out into the community was not an option. If COMPETE

funds were used to pay the costs of having a high school teacher go into the community, the community activities would be be discontinued at the completion of the project. Thus, for a period of time, the project was in a position of not being able to develop the cooperative services it set out to develop.

Again, as in the case of the ITP process, the local agencies were able to develop their own way of delivering the necessary services. In this case, the principal of the school in which the class of moderately retarded students was located and the LEA director of special education found a way to free the high school teacher on a half-time basis so that he could go into the community to provide work training to his sixteen to eighteen year old students. The key to making this change was the Student Work Adjustment Program (SWAP) that was in existence prior to the startup of Project COMPETE. The schools were sending most of their secondary level moderately retarded students to the rehabilitation center for half days. This fact allowed the school adminstrators to send the high school teacher into the community with his student/clients during SWAP hours, and to cover the students remaining in the classroom with other school personnel during job coaching hours. Because this change was made by the local administrative personnel, and because it required no additional funds, it was a change that will persist beyond the termination of federal funds.

Transition from Work Experience to Competitive Employment: Competitive Employment Case Studies. It is clear that the placement of COMPETE school graduates in competitive employment encountered a major problem in that each of the first four placements failed within a short

time. The process of providing work experience during the school years to be followed by competitive employment training upon graduation from the public school program is full of pitfalls, and understanding the problems generated by this sequence is central to successful transition programming.

The following case studies are instructive in that they illustrate what happened when the student/clients shifted from work experience to competitive employment. They will demonstrate why the project staff made changes in the way work experience and competitive employment training is structured and delivered.

1. Dennis. Dennis is the young man who was seen by the staff as the "star" of the program. His first work experience placement was at the age of 16 as a bottle sorter in the Coca Cola Bottling Plant. His work there was seen by teachers, rehabilitation center staff, COMPETE Staff and the employer as successful. His work in subsequent placements as a janitor in the local university branch center, kennel assistant at an animal shelter, and food service worker in the Koala Center were also rated by employers and staff as excellent. Parental support was excellent, and everyone was convinced that he was ready for competitive employment by the time he was eighteen years old. He was placed in the local Holiday Inn as a dishwasher. He had immediate difficulty with endurance, but expressed pleasure at being able to work and receive a paycheck. He obtained his driver's license, bought an automobile, and appeared to be well on his way to independence in competitive employment. After four weeks on the job his production was still at less than 80% industry standard, and one day he resigned, saying the work was

too hard. He returned to the rehabilitation center workshop for several months, and was put on a weight reduction and physical conditioning program. He was being reconsidered for competitive placement as the project ended.

2. Don. Don is a young man with Down Syndrome who had a long history of behavioral problems, but who had developed "pet" status at the rehabilitation center. Following a work experience placement in the kitchen of the rehabilitation center, Don's first community-based work experience placement was as a kitchen aide at the local Koala Center. He was so well received that the kitchen manager requested that he remain two extra months beyond the time at which his experience was supposed to end. All evaluations were positive except in the area of speed. Nevertheless, he was able to complete all work assigned to him at the work site. His second placement was at a popular local restaraunt as a dishwasher. He fit into the staff very well, and his evaluations were all good except for work speed, which was seen as too slow. Again, however, he was able to complete all tasks assigned to him within the allotted time. He graduated from school, received further training in the rehabilitation center, and was placed in a local nursing home as a dishwasher (because it allowed a slower work pace than most restaurants). He worked there for two weeks under an arrangement in which he would receive training for eight weeks, at the end of which time the nursing home would make a decision as to whether or not to give him permanent employment. After two weeks, the administrator of the nursing home went to the kitchen one day and discharged him.

3. Gary. Gary graduated from school the year COMPETE began in Jackson County (PY-2). He was enrolled in the SWAP Summer Program, and was placed into a summer janitorial position in the Seymour Public Schools. Despite administrative assurances that the work would be repetitive, the actual job changed daily as the janitorial staff moved through the school, cleaning various rooms and doing yearly scheduled maintenance. Negotiation finally resulted in a daily routine of jobs, and he completed the summer experience. Unfortunately, his job routine required him to be relatively isolated from the other workers in the school for much of the summer, and he expressed dissatisfaction with the work. In the fall, he was placed into a dishwasher's job at a local restaraunt, and did very well. He fit into the kitchen staff well, performed his work appropriately, and appeared to be well on the way to competitive employment. After a period in the workshop, he was placed into another restaraunt in a competitive job as a dishwasher. After a week he was discharged for inadequate performance and inappropriate behavior. His comment was that he wanted to go back to the workshop to be with his girlfriend.

4. Alan. Alan graduated from the Bartholomew schools just after COMPETE began. Parental support varied according to the parent with whom he lived (his parents were divorced and seemed to take turns taking custody of Alan). He was placed into a janitorial job at the Koala Center, where he performed very well according to the evaluations of his job coach and maintenance supervisor. He was also placed on the DSI lawn crew, and in the kitchen. Since he expressed a liking for kitchen work, he was placed into a dishwasher's job at a local cafeteria. He learned

the job, and his production was rising. Within two weeks, Alan could perform 17 of the 20 critical functions comprising his job without prompts. One day the restaurant manager gave Alan's work a negative evaluation that he may have overheard, because he immediately began to do things he knew to be wrong, e.g., operating the dishwasher with the door open, and throwing utensils. He was discharged.

5. Becky. Becky has been placed only in work experience placements. Although she is now 20 years old and has completed the public school program, she is treated as a young child by her parents. As a result, she exhibits immature behaviors which are approved by her parents. When she was placed at a nursing home as a dishroom aide, she learned to perform all necessary tasks, but her work was relatively slow. She returned to the workshop, and was subsequently placed into the Koala Center as a dishwasher. She continued to exhibit immature behaviors, and at the end of the placement, returned to the workshop saying that she preferred working there because she could be with her friends. She has not yet been placed in competitive employment.

Analysis

Because Project COMPETE activities spanned secondary public school and post-school programming, the project followed the same severely handicapped individuals from early work experiences to competitive employment placements. Thus, the project staff was in a unique position to evaluate the relationship between these two components of vocational training. The primary conclusion to be drawn is that even a successful school-based work experience program does not ensure successful post-school competitive employment. In retrospect, we believe that there are three problems that caused the competitve employment placements to

fail: (a) work experience placements do not always simulate work conditions in competitive employment; (b) severely handicapped students who graduate from public school programs are likely to have physical endurance/stamina problems; and (c) some student/clients may be too immature for competitive placement.

Problem 1: Work Experience vs. Competitive Employment. The Project COMPETE Employer Survey found that most employers rated "performing a civic duty" as providing a very low level incentive for hiring mentally retarded workers for competitive employment (Working Paper 85-6). The staff initially assumed that the employers in the COMPETE catchment area would hold this concept across the board. However, actual experience in Project COMPETE matches the findings of Riccio and Price (1984) in that altruism/civic duty appears to be one of the primary reasons that employers accept work experience placements in their businesses (student/clients in these sites were paid mostly out of COMPETE or SWAP funds). COMPETE staff found that employers who were willing and cooperative in providing COMPETE student/clients with work experience placements, and who continually praised the work of the student/clients placed in their businesses, tended to balk at employing the same individuals after graduation from school. Looking back, it appears that positive evaluations made by employers were rooted in an altruistic framework in which any accomplishments of the student/client while on the job were greeted with enthusiasm, and problems such as lack of productivity had a tendency to be overlooked by the employers.

To illustrate this point, Table 10 summarizes employers' evaluations on work experience students on the Employer Rating Scale of Worker Performance. All ratings of student/clients as workers indicate

Table 10

Summary of Employer Rating Scale of Worker Performance Reports for Work Experience Placements (N = 10).

	Mean Rating
GENERAL WORK SKILLS	
Stays on-task/Works hard	3.6*
Work ability/Performance	3.3
WORK HABITS	
Attendance/Punctuality	2.3
Self-direction/Initiative	3.7
WORK ATTITUDES	
General work attitude	2.6
Responsibility/Dependability	2.8
Enthusiasm/Motivation	2.8
Pride in his/her work	3.1
Honesty	3.0
PERSONAL CHARACTERISTICS	
Cleanliness/Hygiene	3.2
Appearance	3.1
GETTING ALONG WITH OTHERS	
With supervisors	3.1
With co-workers	3.1
With public	3.0
Postive/friendly personality	2.78

*Note: 1 = Better; 2 = A little better; 3 = About the same; 4 = Not quite as good; 5 = Worse.

that the employers rated the retarded workers at least as good as other workers (and sometimes better) with the exception of the two lowest rated worker characteristics: "Stays on-task/Works hard" and "Self-direction/ Initiative." A similar picture is presented in Table 11, which summarizes 106 Employer Concern Reports for 10 students in 20 work experience placements. "Ability to perform at an acceptable rate" and "Self-direction/Staying on-task" comprise 51% of the concerns reported by employers. Thus, even during the work experience placements, employers were saying that our student/clients did not maintain an acceptable work rate without extra supervision and reminders. This information tended to get ignored due to the number of overwelmingly positive responses made by the employers about the student/clients in other areas.

The problem of maintaining an acceptable work rate over time without excessive supervision is particularly interesting when one considers the fact that the majority of work experience students were performing nearly all critical functions by the end of a placement (Working Paper 87-2). Parenthetically, it was for this reason that the standard time component was added to the Critical Functions Profile (Compare the CFP in Working Paper 85-4 to the CFP in Working Paper 87-5). This modification allows the job coaches to pinpoint areas of difficulty with respect to speed of job performance.

Because of an event that occurred early in the program, the COMPETE job trainers were required to make a conscious attempt to turn supervision of student/clients over to the regular staff as soon as possible. As a result, the project staff did not pay sufficient attention to the demands of competitive employment. When the

Table 11

Summary of Employer Concern Data Forms for Work Experience Placements (Number of Students = 10; Total Placements = 20; Total Concern Reports = 106).

Concern Areas	Reported Frequency	Percent of Total
1. Ability to perform assigned work	17	15
2. Interactions w/ public	2	2
3. Ability to perform at acceptable rate	23	21
4. Interactions with supervisor	8	7
5. Critical non-vocational skills	9	8
6. Interactions with co-workers	0	0
7. Following directions	8	7
8. Use of break time	4	4
9. Self-direction/Staying on-task	33	30
10. General appearance	3	3
11. General attitude toward work	2	2
12. Other	2	
Total	111	

rehabilitation center job coach began training student/clients for competitive employment, the perceptions from the work experience sites were carried over into the competitive site, and insufficient attention was paid to client perceptions of productivity, i.e., most of the workers thought they were working at a fast rate. By this time, the rehabilitation center job coach was coaching as many as four placements simultaneously, and continued to turn supervision over to the on-site staff as quickly as possible. In each case, although the client learned to perform the job (just as they had in the work experiences), each had problems with speed, Subsequently, in each case, the client was terminated.

The staff interpretation of the above is that a clear distinction must be made between work experience and employment training. Sequenced experiences beginning with work experiences are appropriate, and young (CA 16-17) people can get much benefit from such placements. However, the COMPETE Staff now believes that the expectations for a school-age mentally retarded student working just 16 hours per week on a fully subsidized salary are different from those for an adult working 40 hours a week and paid directly by the employer. Therefore, it is necessary to provide at least one work experience site prior to placement in competitive employment in which the employer pays the student/client wages, and in which the job coach remains on site. The latter is necessary to ensure that (a) the job is completed every day (the employer hires an employee to perform the job); and (b) the student/client has an advocate (severely handicapped persons are not in a good position to advocate for themselves).

Problem #2: Physical Conditioning. The physical conditioning barrier appeared due to an inadequate concept of work training on the part of the COMPETE staff. The literature of rehabilitation is full of references to poor endurance as a barrier to competitive employment. By increasing the number of hours each student/client worked over the course of work experience placments, the staff assumed that increases in physical endurance would accompany increases in student vocational skills. In several cases this assumption was strained. One young man, who was moderately retarded, even obtained his driver's license and bought an automobile on the wages he earned. Yet he too, eventually left his job because he had great difficulty staying on his feet for eight hours at a time: he simply was not physically ready for the demands of competitive employment. He was quite capable of working for four hours a day while in the work experience program, but full-time employment was nearly beyond him. The result of this and similar experiences is that the public school programs have instituted both a cardio-vascular and a skeletal muscle conditioning program as part of the regular physical education program. Whereas the PE program was once one of games instruction, it now is aimed at developing fitness in the severely handicapped population.

The lesson to be learned from such experiences is that vocational training has to be seen as greater than simply one of learning job and job-related skills. Matters such as physical conditioning, appropriate social interactions, and self-directed behavior must begin early in the school career of the severely handicapped students, and are a part of the vocational transition program. Without them, competitive employment is difficult to maintain.

Problem #3: Maturity. A problem arose that the COMPETE Staff attributes to student/client immaturity. As is true for most school districts in Indiana, Bartholomew County "graduates" its severely handicapped students at the age of eighteen, whereas in many other states (where there are successful transition programs) they are maintained in the public schools until age twenty one. The student/clients who went through work experience training did very well, and the staff was convinced that many could go directly into competitive employment from the high school program. Unfortunately, each and every one of the student/clients placed in competitive employment while they were 18-20 years of age had a problem during their first competitive employment placements: they began their jobs, did well initially, and then left their jobs for unexpected reasons (see case studies in the next section). One young man, for example, may have overheard his employer telling the job coach that he was not fast enough and that he might not be able to keep him on the job. At that point, the young man began to do things he knew to be wrong, and that he had never done before. In some instances his behavior was outright dangerous, e.g., running the dishwasher with the door open.

The staff attributes these actions to simple immaturity, i.e., the clients learned their jobs, but it seems as though the pressures of competitive employment were too great for these young people despite the fact that they were receiving support from rehabiltation center personnel. Unfortuately, the three year duration of the project was insufficient time to test this hypothesis.

The transition from work experience to competitive employment provoked negative consequences for the student/clients too: (a) forty

The transition from work experience to competitive employment provoked negative consequences for the student/clients too: (a) forty hour weeks in competitive sites provided little social contact for the student/client, and they often expressed the desire to be with their friends; (b) the transition from a four hour work day to an eight hour work day placed a physical strain on them, and they had great difficulty in making the physical adjustment; and (c) the first three employers at competitive sites pointed out that the student/clients had difficulty performing at standard work rates, and staying on-task (problems that came up frequently in the work experience placements also).

Concluding Statement

Taken as a whole, Project COMPETE was quite successful. A cooperative system of work training is now in place and operating, and it is a system in which both the schools and the rehabilitation center play major roles. The schools are responsible for providing initial work training and work experiences, and the rehabilitation center is responsible for making the student/clients ready for competitive employment. The staffs of both the schools and the rehabilitation center engage in joint programming, and the local vocational rehabilitation agency has modified its traditional emphasis on adults, and is participating actively when the student/clients are just 15 years of age.

The system is now in place and will remain in operation after termination of the project. A major reason for its continued operation is the fact that all changes have been carried out at not cost to either the school system or the rehabilitation agency. All changes were in duties, not additional personnel, i.e., personnel who were originally in

place are still there. Their jobs, however, are now quite different than they were at the beginning of Project COMPETE. That is,, where originally the student/clients were kept within the confines of either the school or the rehabilitation center, now the community is their training ground.

The effects of the project on the staff have been noticeable, though probably not measureable. The high school teacher indicated the profundity of the changes one day: he stated in a meeting that, when COMPETe began, he was ready to leave teaching. At the beginning of the project, he said that he had told his wife he would stay on the job "one more year, and if it doesn't get better, I'm gone". The teacher not only is still there, he has gone back to the university for his specialist (Ed.S.) degree because he intends to stay.

Thus, Project COMPETE did what it set out to do. Because the elementary teachers were included in the training sessions, their ideas of what they must do are now different than they were before, and their children will have different understandings from those of the current teenagers when they reach the senior high program. Unfortunately, the effects of the changes they have instituted will not be seen for a number of years, but we hope they will be great. Still, just given the changes that have appeared in only three short years, the existence of the project is justified.

APPENDIX A

Labor Market Trend Analysis:
Seymour, Indiana

Labor Market Trend Analysis:
Seymour, Indiana
Project COMPETE

SOURCE ONE:

Demographics and Labor Market Information for Service Delivery Area Planning-- July 1, 1985- June 30, 1986: South Central Indiana. Indiana Employment Security Division, Indiana Office of Occupational Development.

INFORMATION RELEVANT TO PROJECT COMPETE IN SEYMOUR:

Seymour/Jackson and Jennings Counties- major manufacturing industries are plastic products, automotive accessories; part of the Hoosier National Forest; national wildlife refuge.

Changes by Industry- 1979-1983

Agriculture, forestry, and fishing: not a major employment group for the area. This does not appear to be a growing industry.

WHOLESALE & RETAIL TRADE

Growth 1979-1983
Food stores
General Merchandise Stores
Eating & Drinking Establishments
Apparel and Accessory Stores

Decline 1979-1983
Building materials, hardware, etc.

SERVICES

Growth 1979-1983
Business Services
Miscellaneous Services

Decline 1979-1983
Hotels, and other lodging places
Personal Services
Education Services

Stable 1979-1983
Amusement & Recreation

GOVERNMENT

For period 1974-1983, Government employment totals show an 8% increase. However, future growth is unlikely. Government jobs are likely to remain stable.

South Central Indiana Percentage Distribution of Employment by Major Industry Division

	1979	1983	Change 1979-1983
Agriculture, Forestry, Fishing	0.8%	0.7%	-0.1%
Manufacturing	37.3%	32.8%	-4.5%
Services	28.0%	29.5%	+1.5%

Occupations of Employed Persons 16 Years and Up

SOC Codes	Occupations	Number	Per Cent
50-52	Service Occupations	14,888	13.7
85-87	Handlers, Equipment Cleaners, Helpers, and Laborer	4,955	4.5
55-58	Farming, Forestry, Fishing	3,108	2.9

Total employed person 16 years and up: 108,253

The Need for Workers 1984-1985

This report indicates RELATIVE NEED. The high demand occupation are most likely to provide the best job opportunities. The lowest demand occupations indicate slim opportunities for employment.

Service Occupations

Highest Demand SOC Code		Lowest Demand	
5216	Food Counter, Fountain and Related Occupations	5262	Baggage Porters and Bellhops
5217 & 5219	Kitchen and Food Prep.		

Production Working Occupations

772 Assemblers

Handlers, Helpers, and Other Laborers

872 Freight, Stock, and Material Movers: Hand

8761 Packers and Packagers: Hand

The top 50 Growth Occupations from Preliminary 1980-1990 Occupational Projections Report (Statewide) includes: (a) Food Prep. & Service Workers; (b) janitors, Porters & Cleaners; (c) Assemblers; and (d) Gardeners & Groundskeepers.

SOURCE TWO:

Seymour Indiana.Greater Seymour Chamber of Commerce, 1982.

Population

Seymour- 15,050
Jackson County- 36,000
Region XI (5 counties)- 157,000
(Bartholomew, Brown, Decatur, Jackson, Jennings)
Ethnic Composition
White- 98.4%
Black- 0.8%

Hotels/Motels

6 motels, 417 units

Hospital
Jackson County Schneck Memorial Hospital
175 patient beds
Convalescent Centers
3 medicade approved centers

SOURCE THREE:
Seymour: A community resume. prepared by Public Service Indiana, Community Services Dept., 1985?

Population

	1960	1970	1980	1990(est.)
city	11,624	13,352	15,100	15,710
county	30,556	33,187	36,523	38,000

MAJOR INDUSTRIES

	PRODUCT	EMPLOYMENT	UNION
GTE-Sylvania	Lighting Fixtures	410	None
Excello	Men's Shirts	400	ACW of A
Cummins Industrial Center	Diesel Engines	385	DWU & OCU
Ben Franklin Distrib.	Distribution Center	350	None
Pantasote Company	Extruded & Molded Plastic	350	UTW of A
Lear-Siegler, Inc.	Ironing Accessories & Bed Frames	280	None
Seymour Manufacturing	Diversified Metal & Wood	157	None
Amoco Chemicals	Molded Plastic Products	130	OCAW

Labor
manufacturing in county- 4850

Indiana Employment Security Division office
551 South Jackson Park Drive
Seymour, IN 47274
(812) 522-1023